

UNIVERSITY OF NORTH CAROLINA

CHARLOTTE

MAGAZINE | FALL 2023



THERE'S NO PLACE LIKE OZ

Oz expert Dina Massachi follows the literary path paved by L. Frank Baum toward deeper understanding of his themes and stories

GOAT FOR THE MIND, BODY AND SOUL

The Center for Counseling and Psychological Services and Student Government Association hosted "Self Care and Social Connections," featuring an afternoon of goat yoga held at the Star Quad.



Great things are happening at Charlotte

The fall 2023 semester is shaping up to be one for the record books.

The 2023-24 academic year started with record enrollment for first-year college students as well as graduate and transfer students, further reinforcing Charlotte's position as one of the largest and most diverse campuses in the UNC System.

The success of our diverse student body — 30,000-plus strong — is just one contributor to Charlotte's ascension in the U.S. News & World Report rankings, where we are now positioned among the nation's top 100 public universities (at no. 96).

At the same time, our research enterprise is powering our region and state like never before. Support from federal, state and private sources reached all-time highs for external research awards and expenditures. This support has enabled us to probe the origins of disease, test the boundaries of artificial intelligence, design treatments for mental illnesses, determine effective approaches to teaching literacy and more — much of which you'll read about in the following pages.

Great things are happening at Charlotte. We often use the phrase "Only at Charlotte" in talking about those "great things." What we mean by that phrase is that what is happening here isn't happening — collectively or simultaneously — anywhere else.



We're experiencing a surge in academic excellence, research productivity and collective influence; this is a direct reflection of our commitment to excellence and the transformative impact our alumni, faculty, staff and students are making on our region and state.

UNC Charlotte is truly Charlotte's great university, as shown by the stories that comprise this edition of UNC Charlotte magazine. As Niners shape the fabric of our dynamic city, it is clear that we all are part of something special.

Go Niners!

A handwritten signature in black ink that reads "Sharon L. Gaber".

Sharon L. Gaber
Chancellor



Mecklenburg County Commission Chair George Dunlap '91,'03 MPA, Ohavia Phillips '15, University trustee Christine Katziff, and Tife Olusesi, student body president, joined Chancellor Gaber at the Uptown Celebration held during Niner Nation Week.



PHOTO BY AMY HART

CONTENTS

Transforming the lives of students through educational opportunity and excellence



14 GOING FOR GOLD

Men's soccer player Samy Kolby experienced exciting life-changing options along with difficult choices in his journey from a talented young athlete to collegiate competitor.

28 MOMENTUM

For the public good: Putting useful research and internship experiences to work, Angel Padilla '23 won a competitive assistantship for graduate studies in public administration.

38 ACCESS

Niner Esports is earning national recognition while enhancing students' Niner experiences. Some – like past club president Jorge Sanchez '23 – are preparing for careers in this popular new field.

Powering the future through inquiry, research and creative discovery

16 CREATE

Architecture professor Jefferson Ellinger is testing an innovative method for bringing the benefits of fresh outdoor air to an enclosed space.



22 INNOVATE

Researchers in UNC Charlotte's North Carolina Battery Complexity, Autonomous Vehicle and Electrification Research Center – known as BATT CAVE – are steering the future of battery technology.

32 DISCOVER

A cross-institutional research team led by public health sciences professor Robert Cramer is driving a never-before-tested approach to suicide prevention for active duty military personnel.

Leading in equity and engagement

4 FIRST PERSON

Levine Scholar Kayla Walker is on a mission to empower women through community-based health education.

12 VOICES

Kimberly Henderson '13 is digitally extending the reach of historic imagery as a digital curator for the Schomburg Center for Research in Black Culture in New York City.



20 ENGAGED

Nancy Bullard '18 M.Ed., aka Mrs. B TV, is a social media science phenom, bringing science to life in the classroom and virtually.

Driving progress for North Carolina and beyond

6 METRO

Oz researcher and expert Dina Massachi is following the literary path paved by L. Frank Baum toward deeper understanding of his themes and stories as she spearheads CharlOz, a fall 2024 community celebration aimed at transforming the Queen City into the Emerald City.



35 CONNECTED

Jamall Kinard, executive director of Lakeview Neighborhood Alliance, and board member for the Charlotte Regional Data Trust, champions the Urban Institute's leadership in empowering communities through data collection and sharing.

MISSION

UNC Charlotte Magazine shares the stories of students, faculty, staff and alumni whose experiences represent the opportunities, scholarly research and diversity of Niner Nation and its impact on the city of Charlotte and beyond.

FEEDBACK

We want to hear from you. Email questions and comments to univcomm@charlotte.edu

Students from the Department of Theatre's summer Circus Theatre program perform in Storrs Building.

PHOTO BY AMY HART



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HOPE + HEALTH

Levine Scholar
Kayla Walker
explains her
mission to empower
women through
community-based
health education

PHOTO BY AMY HART

FIRST / PERSON

Kayla Walker, a junior from Crofton, Maryland, is a Levine Scholar who is majoring in public health and mathematics on the pre-medicine track – and passionate about closing the health disparities gap that exists for women of color. Earlier this year, Boston-based nonprofit Campus Compact named her among its 2023-24 Newman Civic Fellows. Throughout the fellowship year, Campus Compact provides students with opportunities to help them develop strategies for social change.

“According to the Centers for Disease Control and Prevention, the risk of pregnancy-related deaths for Black women is three times higher than for white women. The CDC also reports that 60% of all pregnancy-related deaths are preventable. Because of persisting racial disparities and biases in the field of obstetrics, countless deaths occur for Black mothers across the United States.

In high school, I completed my STEM senior capstone project about the maternal health disparities and biases in medicine. My classmates and I completed an educational session with aspiring health care professionals about common medical misconceptions by race, informed them about maternal mortality disparities and introduced doulas as a potential field of interest.

This project sparked my overwhelming interest in women’s health. Coming to Charlotte as a Levine Scholar, I wanted to use the opportunities available through this scholarship to understand the state of women’s health in the city, work with local organizations that address women’s health issues, and join clubs and organizations that support the cause.

BUILDING A FOUNDATION FOR FUTURE EXPERTISE

During my first semester, through a partnership between the Levine Scholars Program Research Mentoring Initiative and the Academy for Population Health Innovation, I joined the research project Holistic Opportunity Program for Everyone Initiative led by Victoria Scott and Jennifer Langhinrichsen-Rohling, faculty in the Department of Psychological Science, and Tamikia Greene, assistant health director, Mecklenburg County Health Department. This initiative’s goal is to integrate behavioral health services in the Special Supplemental Nutrition Program for Women, Infants and Children, known as WIC, and Family Planning Clinics in the Mecklenburg County Public Health Department with a special focus on screening women who may have postpartum depression. Joining this APHI project would establish a strong foundation for my future endeavors in the field of public health, because I had the opportunity to see how academia and public health could work together to make recommendations that are both practical and data-informed.

One fundamental component of the Levine Scholars Program is a civic engagement project. Each scholar is allocated \$8,000 to implement a project with a nonprofit organization of their choice. At the end of my first year, I learned of an existing project, Harvesting Healthy Habits. The goal of this

project, partnered with the Salvation Army Center of Hope, a homeless shelter for single women and families, was to provide broad health education to the women and children of the shelter and supply essential products for self-care. Each session had a different focus such as dental, skin, eye or maternal health.

It was perfect for me because it combined my interests in medicine and public health while serving a community that is important to me. Interacting with the women during the educational sessions stood out. I loved having meaningful and engaging conversations with the residents about their health. As I take full ownership of the project this academic year, I hope to continue providing even more essential products and health education to the women of the shelter. One of my goals is to partner with additional local organizations that share a similar goal of increasing access to health care for this community.

JOINING A COMMUNITY OF STUDENT LEADERS

Being nominated and selected to participate in the Newman Civic Fellowship is a highlight of my time so far at Charlotte. I am very excited to join a community of students from across the United States who are leaders in their cities and who have an interest in taking action to solve public problems.

During my next two years at Charlotte, I hope to make a difference in the state of women’s health by conducting research about maternal-child health disparities and implementing sustainable programs to help marginalized communities. I know the resources and guidance from the Newman Civic Fellowship will assist me in achieving my goals.

For anyone who is interested in learning more about the maternal health crisis in the U.S., I highly recommend watching the documentary, ‘Aftershock.’ The UNC Charlotte Maternal Child Health Workgroup sponsored a screening on campus. This documentary, which follows the families of Black women who died due to preventable pregnancy-related complications, sheds light on changes we can advocate for within the health care and legal systems to prevent such tragic deaths from happening.

Other ways to get involved include joining the MCH Workgroup or Health Care Justice and to volunteer at local organizations such as Care Ring. The overwhelming action this country is taking to improve the maternal mortality disparities leaves me optimistic for the future. With education, advocacy and action, I know the future is marked with equitable health care outcomes for all.



**STORY BY PHILLIP BROWN
PHOTOS BY KAT LAWRENCE**



BEYOND THE YELLOW BRICK ROAD

Oz researcher and expert Dina Massachi follows the literary path paved by L. Frank Baum toward deeper understanding of his themes and stories

A fascination with “The Wizard of Oz” surfaced in UNC Charlotte’s Dina Schiff Massachi ’15 M.A., during her childhood whenever the 1939 movie aired on television. These viewings often were followed by reenacting scenes with her friends on the playground — and choosing Dorothy’s outfit as a costume for several Halloweens to match the story’s beloved protagonist.

“I could relate to Dorothy, because I resembled how she was depicted in the film,” said Massachi. “The MGM musical was intended to be a prestige piece, but it failed to garner acclaim. In 1956, it moved into the public domain and became a staple on television, immediately becoming a holiday classic shown around Christmas.”

The film, starring Judy Garland as Dorothy Gale, is based upon L. Frank Baum’s “The Wonderful Wizard of Oz,” published in 1900. Writing at the turn of the 20th century, Baum was influenced by feminism and socialism, topics prevalent to the period. His mother-in-law, Matilda Gage, lived with the Baums and was a contemporary of Susan B. Anthony and Elizabeth Cady Stanton, key figures in the women’s suffrage movement. In total, Baum authored 14 Oz works, creating a utopian/dystopian fantasy world considered the archetype for modern children’s literature.

Massachi, today a recognized international authority on Baum and his literary influence, grew up in New Jersey. A graduate of Ithaca College, Massachi moved to North Carolina, teaching at schools in Charlotte and Chapel Hill. After meeting and marrying a Queen City native, she returned to Charlotte, where job angst prompted pursuit of a graduate degree.

RETURN TO OZ

In the Master of Arts in English program at UNC Charlotte, Massachi took her first children’s literature class, which reintroduced her to Oz. “I remembered those feminist and utopian connections, and I finally had the time to explore them. I wrote a paper comparing Thomas More’s ‘Utopia’ to Baum’s wonderful wizard series, and I ended up presenting it at three different conferences. I was hooked.”

After completing her master’s degree, Massachi joined the University as a lecturer in American studies, teaching Oz courses. Her Baum research intensified, leading to the publication of the journal article, “Connecting Baum and Gilman: Matilda Gage and Her Influence on Oz and Herland.” Charlotte professor Mark West invited her to contribute a chapter to “Shapers of American Childhood: Essays on Visionaries from L. Frank Baum to Dr. Spock to J.K. Rowling.”



Producers of the documentary, “American Oz,” took notice of her expertise and tapped her to contribute to the film, which aired on PBS in 2021.

EXPLORING OZ – AMERICA’S FAIRY TALE

Baum’s significance in children’s literature was in creating a distinctly American fairy tale, explains Massachi.

“Before Baum, the European fairy tale — with characters obsessed with marriage and social climbing — dominated children’s literature,” she said. “Baum’s works, however, are not stories of romances or rags to riches, they are the original buddy tale — four strangers who forge a friendship during a remarkable journey.”

In “The Wonderful Wizard of Oz,” friendship rather than romance is the ideal, and as Dorothy journeyed the yellow brick road she met the Scarecrow, Tin Man and Cowardly Lion and many others who offered support and companionship.

“I regularly describe Oz as a haven for misfits. This appeals to

anyone who has been disadvantaged in society, and when you consider how various populations have been treated throughout history, the misfits together are a majority,” Massachi said.

Another key theme is self-reliance. “Ralph Waldo Emerson’s depiction of self-reliance in terms of how an individual contributes to community while maintaining their ability to be distinctive affected Baum. So his works emphasize the notion that what a person needs is within them. For example, the Cowardly Lion possessed courage but allowed self-doubt to undermine his capabilities.”

She points out Baum’s attitude about feminism in more than one of his books. “The idea that Dorothy can adventure like a boy, or Glinda, the good witch, is solving problems constantly, or the rightful ruler of Oz is a girl, Princess Ozma, who is introduced in Baum’s second book and appears in every subsequent book, resulted from the feminist influences in his own life,” said Massachi.



Dina Massachi talks about Jack Pentes Jr., designer of the Land of Oz theme park in Beech Mountain, North Carolina, during an immersive experience for students involved with organizing the CharLOz festival.

“I regularly describe Oz as a haven for misfits. This appeals to anyone who has been disadvantaged in society, and when you consider how various populations have been treated throughout history, the misfits together are a majority.”

Dina Massachi

Socialism as a theme begins to emerge in “The Marvelous Land of Oz,” a tale that reflects Baum’s experience with difficulty holding a job and various commercial ventures that ended in bankruptcy. Within his book series, Baum explored the value of money equating its worth to straw. The Nome King of the third book is an “evil capitalist” who values possessions over people, and the sixth book opens with the Gales’ farm seized through bank foreclosure.

TEACHING OZ

As a teacher and researcher, Massachi sees literature as a way to explore the past to gain a better understanding about culture and society.

Baum’s depiction of the Emerald City, which was influenced by the 1893 World’s Columbian Exposition, held in Chicago, opens discussion about U.S. history in the early 1900s through the Great Depression. The perils of Kansas farm life are entry points to discuss agrarian culture, business, sociology and geogra-

phy, not to mention the weather and science of tornadoes. Other areas for discussion include copyright law, film and film history, gender roles, philosophy and literary criticism.

Since its premiere on Aug. 25, 1939, MGM’s classic film has served as a touchstone for every generation, which makes Baum’s works more accessible for students.

“It’s virtually impossible to make it through the day in America without noticing the cultural influence ‘The Wizard of Oz’ has had on society,” said Massachi. “From Elton John’s ‘The Yellow Brick Road’ to Broadway’s ‘The Wiz’ and ‘Wicked’ to countless TV episodes in which a combination of friends embark upon an adventure. Oz has tons to teach us about acceptance and self-reliance as well as about enjoying the journey and finding your own power. There’s something for every reader.”

Phillip Brown is assistant director of strategic content for University Communications and editor of UNC Charlotte Magazine.



A campus and community celebration

The city of Charlotte will become the Emerald City in fall 2024 as it celebrates L. Frank Baum's "The Wonderful Wizard of Oz." CharlOz, a three-day festival, Sept. 27-29, will feature author readings and scholarly talks, gallery exhibits and displays, arts and crafts, performances and more.

Dina Schiff Massachi is coordinating the event in conjunction with community partners, starting with *ImaginOn*: The Joe and Joan Martin Center and the Charlotte Mecklenburg Library. The Charlotte Film Society, Charlotte Lit, the International Wizard of Oz Club and the Land of Oz theme park are festival partners, too.

Massachi's new work, "The Characters of Oz," published in July 2023 by McFarland Books, is an inspiration for the campus/community collaboration. A collection of essays edited by Massachi, the book features contributions by fellow professor Mark West and Shannon Murphy '20 M.A.

"When one thinks of the great classics that tap into imagination for a wide range of audiences, "The Wonderful Wizard of Oz" is near the top of the list," said Becca Worthington, children's librarian, Charlotte Mecklenburg Library. "Fantasy can help children of all ages understand and explore their world, stimulate creativity, increase vocabulary and much more. *ImaginOn's* participation as a partner organization in CharlOz is an exciting

opportunity to foster the imaginative growth of all our library and theater patrons through a fun and free festival for all who are open and willing."

Maryann Okeeffe, planning and partnership coordinator for the library, noted Oz lends itself to developing programs and activities to encourage participation by virtually everyone.

FESTIVAL PLANNING CREATES LEARNING OPPORTUNITIES FOR CHARLOTTE STUDENTS

Massachi and West received a \$20,000 grant from North Carolina Humanities for planning CharlOz. The Levine-Sklut Foundation also is providing funding; however, additional financial and community support are being solicited.

In spring 2023, Massachi started teaching a LEADS class through the then College of Liberal Arts & Sciences, now the College of Humanities & Earth and Social Sciences. Leadership, Innovation, Technology and Diversity seminars offer students real-world experience through internships.

Dallas Pike, a junior marketing analytics major and English minor, participated in the spring LEADS class through which students are helping organize CharlOz; she is enrolled in the fall 2023 session.

CHARLOZ SPEAKERS:

Gregory Maguire
“Wicked”

Danielle Paige
“Dorothy Must Die”
series

Eric Shanower
“The Enchanted
Apples of Oz” and
other graphic novels
(“Adventures in Oz,”
“Little Adventures
in Oz,” “The Giant
Garden of Oz”)

Amy Chu
and Janet Lee
“Sea Sirens” (Baum’s
“The Sea Fairies”)

Angelica Carpenter
“L. Frank Baum: Royal
Historian of Oz”



“CharlOz is going to turn the Queen City into the Emerald City, and I can’t wait to see it unfold.”

Jashonai Payne
Clear Creek Elementary School
fourth grade teacher



Scan to learn more about
the CharlOz three-day
interdisciplinary festival.

“Some lifelong skills I have gained from the class are communication, critical thinking and collaboration. I have spoken with and learned from different people, which has strengthened my active listening skills and aided my decision-making processes,” said Pike. The marketing major is spearheading the creation of a student organization to raise awareness of CharlOz and support fundraising. “Oz really unites people from diverse backgrounds, and CharlOz will help us build a new community.”

To reinforce Pike’s observation, Massachi said CharlOz is bringing people together across campus to support it, sparking collaboration among faculty and staff members in Atkins Library, the College of Arts + Architecture and the College of Humanities & Earth and Social Sciences.

PARTNERSHIP TO DEVELOP TEACHING CURRICULUM FOR CMS STUDENTS

Through the Charlotte Teachers Institute, an innovative partnership among Charlotte-Mecklenburg Schools, UNC Charlotte and Johnson C. Smith University, Massachi is leading the

professional development seminar, “All Roads of Thought Run Through Oz: Teaching Any Topic using “The Wonderful Wizard of Oz.”

Seminar participants are CMS teachers who create an original curriculum unit for use in their classrooms. The curricula are shared online and become resources not only for CMS teachers but educators worldwide through the Charlotte Teachers Institute’s online archives.

Clear Creek Elementary School fourth grade teacher Jashonai Payne is a 2023 CTI Fellow and participant in Massachi’s seminar. In pitching the seminar, Massachi promised educators they could use Oz to teach any subject.

“I was hooked,” said Payne. “She’s definitely the Oz guru. The number of resources that Dina provides us is exciting. She’s so passionate about Baum and that transfers to us.”

Seminar participants will implement discipline-specific content throughout the 2023-24 academic calendar.

“CharlOz is going to turn the Queen City into the Emerald City, and I can’t wait to see it unfold,” Payne said.

PAST

Kimberly Henderson '13 is digitally extending the reach of historic imagery

BY MEG WHALEN



PHOTOS BY HANNA WONDIMAGEGN

FORWARD

The first census to acknowledge Emaline Davis McCracken by name was in 1870. A 30-year-old “farm laborer,” she had lived her whole life in South Carolina, but it took the Emancipation Proclamation, a bloody Civil War and the 14th Amendment to change her status from property to personhood.

Kimberly Henderson ’13 discovered Emaline, her great-great-great-great grandmother, by searching backward, and then forward, in time. An amateur genealogist, Henderson was researching her father’s family, tracing her roots generation by generation.

“I would get to the 1800s, and they would start to disappear,” she said. The experience was a striking contrast to earlier investigations of her mother’s ancestors, who were of mixed African, European and Native American heritage and had owned land in the North Carolina Piedmont since well before the Civil War. Henderson became frustrated by the lack of historical records.

“And then it hit me: They were enslaved. It was a thing to reckon with.” She had to turn from “the anonymity of enslavement” to the 1870 Census, the first in which African Americans appear as citizens, to find Emaline.

Henderson is the digital curator at the Schomburg Center for Research in Black Culture, an internationally renowned cultural institution in the New York Public Library system. And though her career there began 150 years after the U.S. Census named her paternal ancestors, it has been tilled, sown and nurtured by Emaline Davis McCracken as surely as the South Carolina soil Emaline worked.

PERSONAL PASSION EMERGES FROM PANDEMIC INTERRUPTION

Henderson majored in studio art at UNC Charlotte, with minors in women’s and gender studies and psychology. An internship at the McColl Center for Art + Innovation led to a full-time job, and Henderson worked there for a few years after graduation. But she yearned for the Big Apple, motivated by a Department of Art and Art History field trip she had taken as a student.

“That was my first time in New York, and I was just so inspired,” said Henderson. “I was like, I want to live in that place.”

So in 2015 she headed north, working first for the public radio show, “This American Life,” and then the Margaret Thatcher Projects contemporary art gallery in Manhattan.

When the pandemic broke out in March 2020, Henderson left New York City and moved home to Durham, North Carolina, to complete a master’s degree in library and information sciences from Syracuse University online. One day, she started browsing Duke University’s digital collection of photographs by the itinerant portraitist Hugh Mangum. From 1890 until his death in 1922, Mangum photographed unidentified white and African American men, women and children in North Carolina, Virginia and West Virginia.

“I had never seen such a wealth of everyday Black people photographed from the 1800s and early 1900s,” Henderson said. She was inspired both by the accessibility of digitized imagery and by the portraits themselves and decided to start an Instagram account where she would curate and post archival portraits “as a way to honor my own ancestors and this idea of the collective Black American ancestry.” She named the project and Instagram account “Emaline and ‘nem.”

It was April 5, 2020, when Henderson posted her first photographs. “I thought if I had 500 followers by October, I would keep doing it. By June I had 11,000. I realized this is so much bigger than me.”

Now, the account has more than 45,000 followers, and the posts — historical photographs that show Black Americans in their silk skirts and feathered hats, their baseball and football uniforms, their choir robes and fur coats — typically attract more than a thousand “likes” and dozens of comments.

“It became this beautiful interaction,” stated Henderson.

DEAR YESTERYEAR

In February 2021, Henderson moved back to New York City to begin her work at the Schomburg Center, where she facilitates projects “that digitally highlight our 11 million archival collection materials.” Digital access has become part of her “personal mission.”

“Emaline and ‘nem” (colloquial for “Emaline and them”) has opened other doors for her, too. Journalist Nikole Hannah-Jones messaged Henderson on Instagram, seeking assistance curating photos for the book, “1619 Project.” Henderson’s selected photos illustrate 17 of the book’s 18 essays.

“It was an incredible experience,” she said.

And just a few months after Henderson launched her archival image project and named it for her great-great-great-great grandmother, an editor at Penguin Random House emailed her to propose a children’s book based on the Instagram account.

“I thought to myself, what would this book be? The people in these photographs are someone’s ancestors. One thing I’d like to do is talk to these people and talk to my ancestors.”

The result is “Dear Yesteryear,” published by Penguin Random House’s Dial Books for Young Readers in March 2023. For the book, which has been praised as “moving and profound,” “inspiring” and “ingenious,” Henderson chose 43 photographs and wrote a lyrical letter to their subjects.

Next, she’ll turn her attention to developing a related exhibition. And she’ll keep honoring her own and the collective Black ancestry through “Emaline and ‘nem.”

“I still find photographs that amaze me.”

Meg Whalen is director of communications for the College of Arts + Architecture.



ENGINE IN THE MIDDLE

A journey from Queen City youth soccer as a highly talented young athlete to UNC Charlotte came after several exciting, life-changing options – as well as some difficult choices.

BY TOM WHITESTONE

Resolve, readjustment and resilience define 49ers men's soccer player Sammy Kolby. He comes by these traits honestly as they are traceable to his great-grandparents, who years ago fled work camps in Ukraine to ultimately find refuge in the United States.

Kolby describes his ancestors as “very tough people” as over their lifetimes they learned by necessity to cope with hardship, navigate war and conflict and overcome adversity. Their experience, he says, has become woven into his family's DNA. He sees clearly how Kolby-family persistence has served him through a soccer career that started around the time he learned to walk.

FUTURE 49ER

Kolby remembers vividly sitting in the stands of Charlotte's Transamerica Field at age 8 or 9, cheering on the 49ers with his buddies as they watched standouts Giuseppe Gentile, Tyler Gibson '13 and Brandt Bronico '16 (now a pro with FC Charlotte).

“The 49ers were in my head even then,” he said. “But at that time I really didn't think about playing here. It's interesting how it came full circle.”

Playing with Charlotte Soccer Academy prior to the existence of FC Charlotte and its MLS Academy, Kolby's best option to continue developing his skills was to leave Charlotte at age 12 to train for four years with Atlanta United MLS Academy. Saying goodbye to his friends and shifting to homeschool for his education were challenging.

“Leaving Charlotte to dedicate myself to soccer required tremendous effort and sacrifice — for my entire family,” Kolby said. “Atlanta was as close to a professional environment as a teenager could get. It was very cutthroat; every year the team would change as friends I'd made left the club, and I made new ones. You have to develop mental toughness.”

Living in Atlanta wasn't easy. His parents left their business in Charlotte to find new jobs after relocating. Kolby still spent a lot of time alone in their apartment completing his classes online.

“There were a lot of ups and downs; sometimes things did not go well with the team. At times I thought it might not work out or that maybe I should have stayed in Charlotte,” he recalled. “Thankfully, the up-times outweighed the down.”

ADAPTING TO CHANGING LANDSCAPES

After four years in Atlanta came six months with Orlando

City's soccer academy before Kolby returned to Charlotte. Not long after, he landed a chance to play in Germany with one of the world's most traditional soccer programs.

Through a process that included participation in several ID camps, which offer players a glimpse of collegiate or professional soccer careers, Kolby connected with GPS Academy, which had a relationship with FC Bayern Munich.

“You had to be invited to the main, high-level recruitment event,” he explained. “From there, two guys were chosen to train for two weeks with Bayern Munich. I did that two years in a row; it was definitely important for furthering my playing career.”

The time he'd spent in Atlanta, Orlando and Germany made a difference in cultivating Kolby's soccer skills and — leaning on the strength instilled by his family — contributed to his personal growth.

“The qualities my family values most are hard work, strength and toughness,” he said. “Shaped by past experiences, those values will always be a part of me and influence how I play, study and do everything.”

While playing for Charlotte Soccer Academy, Kolby was recruited by the Charlotte 49ers as a four-star prospect, considered elite with potential to be a freshman starter. The midfielder appeared in every match his first year with the 49ers, starting in five games.

SOCCER ODYSSEY POINTS TO A HOMETOWN UNIVERSITY

Now a sophomore, Kolby realizes that at the heart of the challenges he's overcome is thanks for his family.

“My father played soccer growing up and pushed me from a young age; without him, I wouldn't be where I am today,” Kolby said. “Now that I'm older, I appreciate the challenges. When I was younger and having a hard time, I thought I should have gone to a regular high school and been a normal kid. Now, I'm grateful for what I learned; it helped me mature quickly.”

As Kolby's Niner journey evolves, it's clear his family's bonds endure across generations — and continue to influence his choices. Majoring in construction management in the William States Lee College of Engineering, he follows a path blazed by his grandfather — who at age 80 still works in construction.

Tom Whitestone is associate athletics director for media relations for the Charlotte 49ers.

“Leaving Charlotte to dedicate myself to soccer required tremendous effort and sacrifice – for my entire family... It was very cutthroat; every year the team would change as friends I’d made left the club, and I made new ones. You have to develop mental toughness.”

Samy Kolby



Samy Kolby's soccer pursuits have taken him from youth academies to the Charlotte 49ers.



PHOTO BY AMY HART



AIR APPARENT

Architecture professor Jefferson Ellinger is testing an innovative solution to bring the benefits of fresh outdoor air to an enclosed space

BY MEG WHALEN

If there's one thing the COVID-19 pandemic and a wave of catastrophic forest fires have taught us, it's that the air you breathe can make you sick. And in a country where the average person spends 90% of their time indoors, good indoor air is especially important.

More than a decade ago, well before coronavirus became a household word, Associate Professor of Architecture Jefferson Ellinger began using his design expertise to improve air quality.

"Part of the mission of being an architect is to protect the health, safety and welfare of the public," he said.

Certainly, good air is necessary for good health: Dozens of studies demonstrate that the high levels of carbon dioxide and volatile organic compounds typically found inside buildings — not to mention molds, bacteria and viruses — impair cognition and raise the risk for a host of diseases. But good air is not necessarily "clean," and the sophisticated air purifying systems that are becoming increasingly popular, Ellinger said, "remove everything from the air, making it sterile, so then the building surfaces and airstream become populated with human pathogens that are brought in by the building occupants."



Jefferson Ellinger makes adjustments to the AMPS control system, which operates the lights, fans and watering system.

PHOTO BY AMY HART

Ideally, the air in an office building would be as healthful as fresh, unpolluted air outside. Working with a team of former colleagues from Rensselaer Polytechnic Institute, Ellinger began to investigate ways to bring the benefits of fresh outdoor air to an enclosed space. Establishing the company Fresh Air Building Systems, they developed AMPS, or Active Modular Phytoremediation System, a plant wall that can be integrated into a building's HVAC system.

BRINGING THE OUTDOORS IN

"Introducing plants reintroduces healthy microbiota into the environment, which can reduce the concentration of human pathogens," said Ellinger. And like trees outdoors, the plants remove carbon dioxide and particulate matter from the air. Here's how the AMPS biofiltration system works.

First, there are the plants. From more than a dozen varieties tested, pothos (also known as devil's ivy) has emerged as the plant of choice. "It's a super robust, hardy plant," said Ellinger, "and good at removing carbon dioxide."


The plants grow in an engineered growing media that discourages mold spores from forming. "It's a combination of activated carbon and Growstones (made of recycled glass) and engineered clay," described Ellinger.

The wall, which Ellinger designs according to the space it will occupy, is a sort of honeycomb structure of Glass Fiber Reinforced Plastic on a steel frame. Each plant has its own nook, its own LED "grow light," and water from an integrated irrigation system.

The AMPS is connected to the HVAC system, and as fans draw air through the plants' root rhizosphere (the micro-ecosystem surrounding the root ball), microbes on the roots eat contaminants that are in the air.

ARCHITECTURE FIRM GRESHAM SMITH PARTNERING ON LIVING LAB

This summer, Ellinger and his graduate research assistants constructed an AMPS in the Storrs Fabrication Lab on campus and installed it in the new offices of Gresham Smith architecture firm in uptown Charlotte. The project is the newest outcome of a multi-year partnership that Gresham Smith has had with the David R. Ravin School of Architecture's design computation program, a dual graduate degree program with the Department of Software and Information Systems that Ellinger directs. Since 2019, Gresham Smith has sponsored architectural studios, supporting students' research. It is an effort to close the gap between academia and design practice, said Sivilay Xayasaene, NCIDQ,



“Part of the mission of being an architect is to protect the health, safety and welfare of the public.”

Jefferson Ellinger

CDT, senior interior designer at Gresham Smith.

“Gresham Smith is proud of our ongoing partnership with UNC Charlotte. This partnership is a merging of architecture and data science; we’re bringing machine learning and algorithms into the design development process with the goal of improving our processes, services and work product.”

Xayasaene said the “living wall” will provide fresh air to the office conference room.

“The goal is to use the system to improve indoor air quality, reduce energy consumption and improve building occupants’ health, well-being and productivity. This system not only ensures a healthier workspace but contributes to the overall sustainable design of the office, which is key to our core values.”

Graduate student Daniel Najarro was part of the Gresham Smith AMPS team, designing mounts for switches and lighting, building the steel frame and helping to install the wall system in the uptown conference room.

“This is the first project I’ve seen from start to finish,” he said. “In education, a lot of things have been intangible. There’s a sense of satisfaction knowing that it is actually being used in an office space.”

Coming to UNC Charlotte from UNC Greensboro, where he earned a degree in interior architecture, Najarro said the proj-

ect has made him think differently about inside space and wellness, knowledge that he will take with him as he pursues a career designing office spaces and perhaps even health care settings.

STUDYING 'YOGURT FOR BUILDINGS'

The AMPS at Gresham Smith and a smaller portable model for campus provide opportunities for further development and research, explains Ellinger. With dual degree graduate students Sharaa Norouzi Talkhounche and Subham Sah, he is designing a machine learning system that will optimize the performance of the AMPS. Sensors will monitor carbon dioxide levels and responsively modify when the plants are watered, how long the lights are on and how fast the fans blow to achieve the best air quality in the space.

“Carbon dioxide is a good way to monitor air quality in the system,” Ellinger said. “It’s a good indicator of other pollutants.”

Cynthia Gibas, a professor in the Department of Bioinformatics and Genomics in the College of Computing and Informatics, is hoping to take the research even further. A specialist in microbial genomics, she uses DNA sequencing to identify which organisms are present in the environment and led the University’s COVID-19 wastewater monitoring effort. More recently, she has turned her attention to indoor air quality — how microbes build up in indoor spaces and what that means for human health.

In December 2022, Gibas learned of Ellinger’s AMPS research from a poster presentation by graduate research assistant Subham Sah. She said the installation provides a unique opportunity to test the impact of plants on a room’s microbiome, the “community of microscopic life — bacteria, viruses, fungi — that is everywhere.”

“What’s in the air? What’s on the surfaces? Do we see a change in the microbiome that is associated with the AMPS? Is it filtering something out or is it introducing something in?”

Gibas hopes to apply the advanced sampling, sequencing and computing equipment that her team acquired during their pandemic wastewater research to this new inquiry. “We really have the expertise to do the microbiome research in house, and we also have the computational analysis and statistics in house, so it’s perfect.”

Gibas and Ellinger plan to seek grant funding to expand the research. Using a free-standing AMPS model developed with colleagues at SHoP architecture firm in New York City, Ellinger and his Fresh Air Building Systems partners have been testing its impact on indoor air quality. The HVAC integrated system at Gresham Smith will allow for more advanced studies.

“We’ve done the research to know that our system is filtering out pollutants,” he said. “Will it lessen the concentration of human pathogens? Could it diversify the building microbiome for a full office footprint?”

Like Gibas, Ellinger is interested ultimately in developing “probiotics” for the build environment.

“I call it yogurt for buildings.”

Meg Whalen is director of communications for the College of Arts + Architecture.



Nancy Bullard '18 M.Ed., a fourth-generation North Carolina public school teacher and a 2022 Charlotte magazine Charlottean of the Year, is followed on TikTok, Instagram, Facebook and YouTube by more than three million people. Her popular, science-based social media videos, which have amassed millions of followers, prompted appearances on NBC's "Today Show," ABC's "Good Morning America" and other programs.

PHOTO BY AMY HART



Welcome to Science
with Mrs. Bullard

SOCIAL SCIENCE

BY SUSAN MESSINA

Nancy Bullard '18 M.Ed., aka Mrs. B TV, is a social media science phenom

“The best part about teaching science to elementary school kids is their reactions when they learn something new or are seeing an experiment for the first time. It’s usually when something is exploding or bubbling; those are the delightful moments that teachers look for.”

Nancy Bullard '18 M.Ed. is one of about 40 K-5 science lab teachers on staff at various locations throughout Charlotte-Mecklenburg Schools. At Huntingtowne Elementary, where she has taught for more than a decade, she helps bring science to life for every student in the school, supplementing the science curriculum for all grade levels through hands-on lab experiences.

During the COVID-19 pandemic, Bullard, like teachers everywhere, struggled to hold students’ attention while stuck at home. In her case, large numbers of students were opting out of her virtual lab sessions.

Taking a leap of faith with an idea to re-engage them through social media, Bullard captured the attention of not only her students, but thousands of kids and families nationwide — along with at least as many educators — through short, lively, science-based TikTok videos.

Now, with more than three million TikTok followers – plus 300,000 on Instagram, hundreds of thousands on Facebook and a growing number on YouTube, Bullard — known to her fans as Mrs. B TV — hears from new and experienced classroom teachers, homeschoolers, camp directors, parents and grandparents who are excited to try the experiments she shares on social media.

“Teachers trust — and love learning from — other teachers,” said Bullard. My goal all along has been to showcase easy, engaging, hands-on science. That hasn’t changed; the only thing that’s different is the size of the audience.”



Scan to read more about Nancy Bullard.

Follow Nancy Bullard on TikTok (Mrs. B TV), Instagram (mrs.b.tv), Facebook (Mrs B TV) and YouTube (mrs.b TV).

Susan Messina is director of strategic content for University Communications.

ELECTRIFYING INNOVATION

UNC Charlotte's research center
flies to the future of energy technology

STORY BY ERIC BUTTERMAN

PHOTOS BY AMY HART

BATT CAVE

Bats — with a boost from their echolocation superpowers — have a natural “leg up” when it comes to navigating complex spaces. Resourceful and patient, they sense opportunities to enter unexplored territory — and seize them.

So it is with BATT CAVE, UNC Charlotte's research center that is embracing — and guiding — the future of battery technology. The North Carolina Battery Complexity, Autonomous Vehicle and Electrification Research Center — BATT CAVE— announced earlier this year, is giving Charlotte the upper hand in an evolving technology. BATT CAVE researchers are providing direction on a broad range of related interdisciplinary topics, from building better batteries for maximum efficiency and effectiveness to more complex challenges, such as optimizing battery usage in autonomous vehicles and remote-controlled devices.

The only university-led battery research center in the state, BATT CAVE is supported by funds from “Engineering North Carolina's Safe and Secure Future,” an initiative of the North Carolina General Assembly, through which UNC Charlotte received \$40.6 million for facilities, equipment and faculty to prepare future engineers to meet growing industry demand. This backing puts UNC Charlotte and the William States Lee College of Engineering in the front of the pack in the transformational energy revolution.

“The transition to a clean-energy economy and battery development and production are strategically important for the U.S. economy,” said Robert Keynton Ph.D., dean for the W.S. Lee College of Engineering. “In this environment, North Carolina is essential to the battery and electric vehicle industry. UNC Charlotte, through rigorous engineering programs and BATT CAVE's robust research capabilities, is positioned to further strengthen the city's, state's and region's workforce and economy.”

*BATTERY COMPLEXITY,
AUTONOMOUS VEHICLE
AND ELECTRIFICATION
RESEARCH CENTER*

MEET THE BATT CAVE TEAM

Expert faculty and their graduate students are focused on the energy that is driving the future. Groundbreaking research, curriculum, and government and industry collaborations are fueling North Carolina's ascent as a hub for electric vehicle and battery production. While doing so, BATT CAVE researchers are finding solutions to questions surrounding the safety, durability, manufacturing and vehicle integration of next-generation batteries for vehicles, smart cities and intelligent systems.



"Finding a location for this project posed some difficulties since we needed to run a train indoors. BATT CAVE provides the support and resources we need, including the necessary space, high-voltage power and, most importantly, help from the faculty."

Mason Sun
master's and future Ph.D.
student, electrical engineering

TIEFU ZHAO POWER TRANSFORMER

Tiefu Zhao's interest in researching electrical power began as a Ph.D. student more than a decade ago. Specifically, it was the potential of renewable energy sources to help build a more sustainable society that captured his attention.

"Power electronics is the branch of electrical engineering devoted to high voltages and currents, so it is the backbone of electrification for our society; it is how we control and convert electrical power," said Zhao, BATT CAVE's interim director. While completing his doctorate, he explored revolutionizing solid-state transformers to replace the 100-year-old design still in use. Connecting solar panels and wind turbines to the nation's power grid is complex due to the mismatch in converting direct current generated by renewable systems to the alternating current of the grid.

His first stop after graduating was a research and development position with Eaton Corporation, a power management company. There he led a global team and conducted advanced studies toward next-generation power electronic solutions related to the electrical sector. In 2016, with six years of industry experience, he joined UNC Charlotte.

UNLOCKING THE POTENTIAL OF WIRELESS POWER TRANSFER

The use of electromagnetic fields to transmit power across space — known as wireless power transfer — is a specialty area of research for Zhao. This is the technology that makes possible the charging of cell phone batteries through a magnetic field created

between the pad and phone, without need for a cable.

Recently, Zhao and his team celebrated a research milestone: a first-in-the-nation, real-world prototype of wireless power transfer in rail application — charging a battery-operated rail trolley at 95% efficiency. Typically, high-powered battery charging in rail systems could achieve roughly 70% efficiency. The five-year effort began as a student senior design project in the W.S. Lee College of Engineering; eventually, more than 70 students participated in the project. It led to a collaborative partnership with the city of Belmont, North Carolina, and the U.S. and state departments of Transportation. The nonprofit Belmont Trolley Inc. is seeking to restore service between Belmont and Belmont Abbey College's Sacred Heart Campus as part of a downtown revitalization effort.

Zhao points out the ways this project demonstrates BATT CAVE's unique approach to research.

"Electrical engineering is needed to build high-density, highly efficient power converters," he said. "Civil engineering provides expertise to install the necessary infrastructure and mechanical engineering to construct safe and effective batteries to meet project specifications."

Private-public collaborations such as this one will bring increased visibility to BATT CAVE and its innovations as students benefit from opportunities to engage in hands-on research as they prepare for today's industry careers. For Zhao and his team, BATT CAVE will offer the chance to transform not only power electronic systems and applications but also the economy of Charlotte and the region.

“At BATT CAVE, I walk into the lab every day and start innovating new technologies in dynamics and controls. It’s an incredible opportunity.”

Alex Nikonowicz
master’s student,
mechanical engineering



ARTUR WOLEK REMOTE CONTROLLER

Artur Wolek’s dreams have long focused on robotics and unmanned systems. Where once he tinkered with and worked on mechatronics projects — those that unite the principles of mechanics, electronics and computing — as a hobby while growing up, he now calls BATT CAVE home for his research.

“I once made a pair of light-up morse code communicators and a remote control car from scavenged parts,” Wolek said. Another time it was a tethered remote control airplane made from balsa wood, Styrofoam, a small DC motor and a propeller. He even fired model rocket engines in his garage to measure thrust before launching them outdoors.

Postdoctoral experience with the U.S. Naval Research Laboratory, which came with opportunities to participate in field experiments that required spending time at sea, deepened Wolek’s early interest and expertise in unmanned underwater vehicles. “I was fortunate to have the opportunity to help develop motion planning and control algorithms for advanced underwater vehicles and work with a team of remarkable scientists, engineers and technicians,” he said.

Now an assistant professor of mechanical engineering, Wolek sees the vital intersection between unmanned vehicles and energy storage and power systems. His goal in regard to batteries is to design control laws that consider the energy needs of vehicles as they are deployed and to optimize their efficiency and endurance. Within BATT CAVE, Wolek is able to focus on aerial and marine robotic systems, including fixed-wing aircraft and multicopters as well as underwater vehicles and unmanned boats.

“Many of these vehicles are used for collecting geospatial information about the environment,” he said. “For example, unmanned boats can collect depth information by autonomously scanning rivers, lakes and coastal waters. This information is used by transportation agencies to evaluate flood risk and to determine the safety of transportation infrastructure such as bridges and piers. Our research aims to design paths for the robots to follow that will collect the most informative measurements while minimizing the energy and time required to do so.”

FAST FACTS

UNC Charlotte is the only university in North Carolina that offers an energy concentration for all undergraduate engineering majors, including mechanical engineering, where battery research is centered. Available in 2024 will be a battery engineering concentration in the M.S. in Mechanical Engineering program.



PHOTO BY RYAN HONEYMAN

"The lab stands on the cutting edge of research for our increasingly electrified world. With all of this going on, cultivating relationships with faculty, industry partners and other researchers comes easily."

Daniel Saraphis, Ph.D.
student, mechanical engineering

AMIR GHASEMI SELF-DRIVING DIRECTOR

Assistant Professor of Mechanical Engineering Amir Ghasemi has long looked at engineering from the inside out. In the case of autonomous vehicles, however, an objective view from the outside in is equally important. His ability to look both ways is evident in the specialized expertise he brings to BATT CAVE.

Amid a growing focus on autonomous vehicles, he emphasizes the need for meticulous examination of their influence on traffic, particularly when coexisting with human-powered vehicles. "I'm devising traffic management strategies for advanced networks that include a mix of autonomous and human-driven vehicles," he said. "Crucial to strategically mitigating traffic congestion is crafting learning-enabled algorithms that model potential interactions among the various types of vehicles sharing the road at a given time."

Ghasemi, who received a National Science Foundation CAREER Award in 2023 to support research in the area of human-robot interaction, also focuses on what is happening inside autonomous vehicles.

"We're investigating the ways humans engage with intelligent automation systems within assisted driving technology, exploring the best times and methods for transitioning control between the automation system and the human driver," he said.



“I have been received by my BATT CAVE partners with respect and confidence. Having shared my interest in marine energy, I was given the freedom to combine this with my battery research work.”

Ivana Yoli Franco Barski,
Ph.D. student,
mechanical engineering



ANTHONY BOMBIK BATTERY AUTHORITY

Anthony Bombik’s passion for batteries dates to the advent of Tesla’s electric vehicle. Today the expertise he’s developed around this passion is making EV battery packs safer and more efficient. With EVs requiring battery power thousands of times stronger than a cell phone, their batteries are structured in a “pack,” created by clusters of modules made up of clusters of cells. “A popular push in the field is to enhance the performance of lithium-ion batteries to compete with gas-powered vehicles,” said Bombik, an assistant professor of mechanical engineering. “Our team is concentrating on optimizing the integration of these batteries into the vehicle system, which is key to extending battery pack life as well as increasing their safety.”

Building a better battery pack is a complex proposition. It requires experimenting with the design of the materials used to achieve the electrochemical and structural components or using conventional batteries packaged in a way to obtain higher efficiency. Bombik’s team is preparing to conduct experiments to assess the various mechanical and thermal stress scenarios on batteries at the module and system levels. Such design improvements are relevant for street-legal use.

Another challenge in pack manufacturing is battery health, a problem widespread across many applications for lithium-ion batteries. In consumer electronics, particularly cell phones and laptops, battery life is seldom more than one to two years due to constant cycling from near-full capacity to empty. This “battery

FAST FACTS

Research related to battery safety, modeling, material synthesis and electrochemistry is being funded by major federal agencies, including the National Science Foundation, U.S. Department of Energy, U.S. Department of Defense, North Carolina Department of Transportation as well as private equipment manufacturers, chemical material providers, battery manufacturers, engineering software companies and insurance companies that are sponsoring BATT CAVE research activities.

fade” limits a consistently reliable range for the eight- to 10-year life of the electric car’s warranty. As a result, many manufacturers limit the usable capacity of each cell by as much as 30 percent.

“Right now, EVs are operating at only 70% to 80% of their maximum possible range,” he said. “By learning and understanding the physical mechanisms that lead to capacity fade and deriving methods to measure, predict and prevent degradation, we can open up the usable window on the battery pack capacity to nearly 100%. It’s exciting for our team to be at the center of something that will have a positive impact on society.”



LIN MA ELEMENT INVESTIGATOR

“My group explores sustainable battery technology, especially at the material level,” said Lin Ma, an assistant professor of mechanical engineering. “This technology has been successful in cell phones and electric vehicles; the results, however, are limited.”

While lithium and cobalt, extracts of natural elements, are used extensively for battery production, renewable energy sources — such as sun, tide and wind — currently provide limited options. At the core of the work Ma is leading is the development of new ways to make energy storage technology more sustainable.

“Sodium-based options are primary to being able to store renewable energy, so that is a focus,” said Ma, who teaches courses such as Materials Science in Battery Technology and Thermodynamics.

As his team’s work progresses, Ma sees clear intersections with that of other BATT CAVE units. “There is tremendous opportunity for interdisciplinary research,” he said. “The work underway that comes immediately to mind are battery pack systems and mechanical failure mechanisms for certain chemistries. The potential for collaboration and continued learning is very exciting.”

“Metal-ion batteries are the core of my doctoral program and have given me a greater appreciation of how to tackle energy and environmental challenges with sustainable materials and electrochemical techniques. This BATT CAVE research experience is building limitless possibilities for my future as a materials science engineer.”

Rishivandhiga Jayakumar,
Ph.D. student in mechanical engineering



Written by Eric Butterman, a freelance writer based in Atlanta, Georgia, with support from Phillip Brown, assistant director of strategic content.



A MIND AND SPIRIT FOR PUBLIC GOOD

Using her Charlotte research and internship experiences, combined with a novel entrepreneurial micro-credential, Angel Padilla '23 wants to affect change

BY PHILLIP BROWN

PHOTOS BY AMY HART

Avangelyné “Angel” Padilla '23 has set out to change the world. With a goal to draft and implement public policy at the state or federal level, she dreams of serving in Congress. To get there, Padilla is taking all the steps she learned as an undergraduate student in social work and Honors College participant to be the change she wishes to see.

“I had a challenging upbringing, so I am passionate about seeking solutions to prevent others from enduring similar circumstances,” she said.

Throughout her Charlotte experience, Padilla seized every chance to delve into complex issues that disadvantaged individuals must overcome to advance in society, including learning the ways research can be used to improve lives. Her commitment has led to a competitive graduate research assistantship at UNC Chapel Hill, where this fall she started studies toward a Master of Public Administration.

APPLYING AN ENTREPRENEURIAL MINDSET TO SOCIAL ISSUES

Padilla was among the first students to participate in Charlotte’s novel social impact/innovation/entrepreneurship micro-credential program, offered through the University’s Center for Entrepreneurship and Innovation. The 12-hour certificate, open to all majors, introduces students to the entrepreneurial mindset, customer discovery and how to make an impact in business, nonprofit organizations or society.

The center holds pitch competitions for students; a panel of professionals who mentor students reviews their ideas and awards funding to winning proposals. Padilla’s pitch involved creating a pilot program to support digital literacy for women at the Center for Community Transitions. Part of the state prison system, the CCT, the only facility of its kind, houses female inmates who are serving the final three years of their sentences. They do receive some job training and support, but Padilla observes that long-term incarceration has left many individuals with virtually no understanding of modern technology.

“Justice-involved individuals who are locked away, some for more than 20 years, often don’t know how to use email, search engines or conduct virtual interviews and meetings,” said Padilla. “This exacerbates their inability to re-enter the workforce.”

Henry Rock, founder and executive director of City Startup Labs, learned of Padilla’s idea and offered her a paid internship for the 2022-23 academic year. City Startup Labs, with offices in UNC Charlotte’s PORTAL Building, works with formerly incarcerated persons through the ReEntry Entrepreneurship Program and Restorative Pathways and with Black tech talent through BlkTech Interactive.



“I learned that while you can have a great idea, you must learn if it really serves a need and is valued.”

Angel Padilla

Angel Padilla honed her research and presentation skills through a paid internship with the nonprofit City Startup Labs.

“Angel brought intellect, rigor and a delightful dose of humor to City Startup Labs,” said Rock. “Her interest in working with our ReEntry Entrepreneurship Program was a perfect fit for her, and we are extremely proud of how she navigated being a first-generation college student and now an honors graduate. She played an important role in our work this past year.”

INTERNSHIPS: VALUABLE, REAL-WORLD EXPERIENCE

“Through my internship with City Startup Labs, I conducted research and data collection related to REEP and the Restorative Pathways program,” said Padilla. “My social work background enabled me to explore different program models to be more effective and offer a different perspective to City Startup Lab’s work. I contributed as I learned.”

Padilla credits the Center for Entrepreneurship and Innovation and the entrepreneurial thinking micro-credential program for introducing her to a new viewpoint on affecting change socially. She added the courses strengthened her skills in communication, networking, public speaking and critical thinking. She also learned the value of resilience, risk-taking, accountability, independence and willingness to experiment.

“Customer discovery was a key concept for me. I learned that while you can have a great idea, you must learn if it really serves a need and is valued,” said Padilla. “The knowledge I gained is applicable for virtually all students and their career aspirations.”

Prior to City Startup Labs, Padilla was selected as a Marian Drane Graham Scholar, which enabled her to intern with the North Carolina Business Committee for Education through the Governor’s Office.

“I had the chance to organize data presentations for a special task force related to hiring and retaining more Black and Brown teachers,” Padilla said. “It really validated that I was on the right career trajectory. It was interesting to conduct research, learn

more about the nuances of the research and data analyses and help present findings to various education officials and community leaders.”

OVERCOMING CHALLENGES, MAINTAINING MOMENTUM

Padilla, a high-achieving student, graduated from White Oak High School in Jacksonville, North Carolina. Describing her parents as authoritarian and less than supportive, Padilla basically raised herself, which affected her decision-making abilities and self-confidence.

Financially, college seemed beyond her reach. She applied for 18 different scholarships before discovering the Martin Scholars Program, established by Charlotte alumni Demond T. ’97 and Kia ’98 Martin.

“Being awarded the Martin Scholarship has been a life-changing experience for me,” said Padilla. “Not only was it a full scholarship, but the program offers so many opportunities.”

From professional development and networking programs to faculty and peer support, the Martin Scholars Program enabled Padilla to focus on her academic, research and extracurricular pursuits. She added the program provided the chance for scholars to widen their cultural horizons through various book discussions and a sponsored trip to Washington, D.C., where they visited the National Museum of African American History and Culture and attended a gala, where they met presidential inauguration poet Amanda Gorman.

Momentum is with Padilla in her quest to change the world. “My Charlotte experiences are a springboard driving me forward. Having opportunities is wonderful, but all the better when you truly take advantage of them.”

Phillip Brown is assistant director of strategic content for University Communications and editor of UNC Charlotte Magazine.

Stand out among the rest

Scan to learn more about UNC Charlotte's Credential Program.



Micro-credentialing pathways offer students the skills that set them apart

Charlotte's micro-credentialing pathways offer ambitious students specialized recognition that demonstrates their competencies in areas that can give them a leg up as they start their careers.

"In an increasingly competitive job market, more students are seeking unique ways to differentiate themselves on resumes and in interviews. Our micro-credential pathways enable students to expand their knowledge and focus on high-demand skills that make them stand out in the workforce," said Laura Smailes, assistant director for UNC Charlotte's Center for Entrepreneurship and Innovation.

Each micro-credential pathway includes 30-plus experiential learning hours outside the classroom with students acquiring core competencies that cross multiple disciplines. Digital badges are awarded for key skills after participants demonstrate their mastery. These skills, to highlight a few, are critical thinking, problem solving, resilience and leadership. These interdisciplinary pathways were developed through consultation with various campus units, including the Center for Entrepreneurship and Innovation in the Belk College of Business, urbanCORE, the University Career Center, Division of Academic Affairs, Office of International Programs, School of Professional Students and Division of Student Affairs

PROVIDING RESOURCES TO ENABLE STUDENTS TO HAVE SOCIETAL IMPACT

The Center of Entrepreneurship and Innovation launched its Social Impact, Innovation and Entrepreneurship Pathway in fall 2022 with 40 students who earned a micro-credential in entrepreneurial thinking, one of three milestones in the program. Students can register throughout the academic year to participate in workshops, mentoring sessions, panel discussions, mock interviews and competitions.

"Many Charlotte students are searching for ways to make an impact through ideas they have for business or nonprofit startups," said Smailes. "The mission of the Center of Entrepreneurship and Innovation is to help them develop the necessary skills to transform ideas to action."



"Many Charlotte students are searching for ways to make an impact through ideas they have for business or nonprofit startups."

Laura Smailes

Within the same timeframe, UNC Charlotte's urbanCORE, the University's hub for community-oriented research and engagement, launched its Community Engagement Pathway.

"As students engage throughout the city and develop their civic identities, we envision the Community Engagement Pathway as a resource to better understand Charlotte's historical context," said Tamara Johnson, urbanCORE's director of engaged scholarship. "Questions they can explore include: What conversations are they hearing about the city, and how do they learn more? What should they ask themselves as they connect with community partners? What does it mean to be a community-based researcher or a social entrepreneur?"

519

ACTIVE-DUTY MILITARY SERVICE SUICIDE DEATHS IN 2021

Joining Forces

Department of Public Health Sciences professor Robert Cramer leads a suicide prevention research project for active military personnel

BY MICHAEL J. SOLENDER

Robert Cramer, a noted public health scholar, is currently focused on a project that could be his most impactful to date after more than a decade of related research — suicide prevention intervention for active duty military personnel.

Cramer is the Belk Endowed Professor in Health Research in the Department of Public Health Sciences at UNC Charlotte. He's leading a collaborative team of researchers at Charlotte and from The Ohio State University and the Naval Medical Center in Portsmouth, Virginia, in a research project addressing effective suicide prevention therapies for military personnel.

It's a critically important mission, and one that has broad implications for the current mental health crisis reaching into all corners of life in America. Military suicide deaths occur at almost twice the rate of those in the civilian population. Cramer and his team see a complex systems and infrastructure problem calling for a public health approach to extend clinical interventions. They've been awarded a grant from the U.S. Department of Defense to fund a research project to assess, treat and prevent military suicide.

"To treat this solely as a clinical problem with therapy and medication is limiting," said Cramer. "Military suicide is a public health problem that needs public health solutions. These high rates are not simply because of trauma or PTSD. Lack of access to effective care, military culture, stigma associated with help-seeking and rigid processes surrounding areas like onboarding clinicians can all contribute to higher incident rates. Our research looks to apply a public health solution to remedy clinician shortage and access to care problems."

While proven suicide prevention therapies such as Dialectical Behavior Therapy, a form of skills training therapy focused on managing emotions and developing interper-

sonal skills, have long existed, they are often administered in burdensome ways over lengthy periods of time. Given inherent resource limitations, both time and access to clinicians, the U.S. military is eager to discover equally effective treatment options for its personnel that require fewer resources, provide better access and return healthy service members to duty more quickly.

APPLIED RESEARCH: BOOTS-ON-THE-GROUND IMPACT

Cramer's work is illustrative of the strong culture and emphasis upon applied research at UNC Charlotte. As an aspiring top-tier research institution, the University provides fertile ground for a structured approach that brings academic rigor, discovery, analysis and innovation to solving complex societal problems.

It's particularly fitting that this project directly supports the U.S. military as the University's founding extends back to the period immediately following World War II as an evening college center opened to accommodate educational needs of returning veterans.

"That we're helping this high-risk group in direct partnership with the Navy, other branches of the military and Ohio State, one of the best training sites for clinical work for suicide prevention in the country, is tremendously gratifying," said Cramer. "This is an area of need where we can make a dent in the problem. As part of a community-engaged public health team, we are boots on the ground and looking to make a real difference in people's lives."

Earlier this year, Cramer, together with Justin Baker, an assistant professor with OSU's Department of Psychiatry and Behavioral Health, developed a study proposal for the DoD to evaluate the effectiveness of a type of suicide inter-

+1.5X

SUICIDE RATE OF ACTIVE-DUTY MILITARY PERSONNEL VERSUS U.S. GENERAL POPULATION

vention therapy being researched at OSU, Brief Cognitive Behavior Therapy. The therapy differs from DBT through focus on teaching coping skills and development of self-administered interventions such as mindfulness and behavioral modification.

With Cramer and Baker as co-principal investigators of the study, therapies are administered to naval personnel in need of therapy at Portsmouth. Independent groups receive either DBT therapy for 24 weeks or BCBT therapy for 12 weeks. Intervention outcomes are compared, analyzed and evaluated at the end of the study.

“We’re implementing a clinical intervention,” Cramer said. “But it’s a clinical intervention that has the potential to solve some of these problems like increasing access to care because it’s a group, it’s not individual therapy. It’s less clinician time, less burden. More people get effective care and are equipped to then use coping skills beyond the therapy room.”

Baker brings a unique perspective to the study from his own career in the Navy. He knows firsthand how academic research is designed to address real-world problems. “I served with the U.S. Navy at Camp Lejeune where I was assigned as a suicide prevention officer,” he recalled. “I started partnering with top-tier universities to advance the research. We had a patient population with tremendous need, and I was able to recruit investigators for studies at our site that allowed us to gain the benefit of their expertise, training and the newest interventions.”

COLLABORATION – GOOD SCIENCE AND STRATEGY

Specialized university research leads to broad-based knowledge sharing and cross institutional collaboration and national thought leadership. Baker and Cramer connected through a mutual colleague, OSU’s Craig Bryan, a nationally recognized clinical psychologist and expert in military suicide prevention.

“We often collaborate with other universities in our research,” said Baker, noting collaboration is simply good science and a key strategy of research institutions. “Rob (Cramer) wanted to do a type of group study following



“Military suicide is a public health problem that needs public health solutions. These high rates are not simply because of trauma or PTSD.”

Rob Cramer



“Every single person I work with on this study, whether they are at one of the universities or an employee of the Department of Defense, they all feel the same way. We want to be part of the solution, part of changing those numbers.”

Heather Rikli '14, MSW

Dr. Bryan’s work with individual BCBT treatment. We’ve done the legwork in forming a team, building a project, getting funding, setting up something that will hopefully have a clinical end systems impact, and now we get to do the important work.”

Cramer and UNC Charlotte have made a strong impression on Baker and his colleagues at OSU. “Rob’s scholarship and ability to mentor graduate students and teaching assistants is impressive,” said Baker. “He truly cares about the issues we’re exploring. He has a diverse background and experience in forensic psychology as well as within the LGBTQ+ community and even prison settings. He takes all of that and weaves it into the suicide prevention work that he’s doing.”

Being part of a team building upon existing research to give suicide intervention broader access is inspirational for others affiliated with the project. “Many of these folks who are dying by suicide aren’t receiving these interventions,” explained Lauren Khazem, research assistant professor and clinical psychologist in the Department of Psychiatry and Behavioral Health at OSU Wexner Medical Center. Khazem is a colleague of Baker and part of the clinical team on the project. She has prior experience with Cramer when they collaborated on a paper when she was a graduate student.

Khazem sees potential for application of their suicide prevention research beyond the military setting and into the everyday toolkit for civilian providers.

“We need to find ways to make these interventions briefer and expand their reach and accessibility,” Khazem said. “We’re looking into self-administered interventions and ways we can take these interventions and administer them in novel formats. When people don’t want to seek help, or can’t access it for a variety of reasons, whether it be stigma, financial concerns, not having the time or transportation to attend a therapy appointment, we need to help make this easier for people to [perform effective interventions] on their own. That’s the next kind of frontier of BCBT in our work here. It’s exciting to be part of that.”

Heather Rikli '14, MSW, is a clinician project team member chartered to conduct group therapy sessions with naval personnel in Portsmouth. “We couldn’t do this project without support from the Department of Defense,” Rikli said. “Everyone plays a different role on the team, and we’re all

working on this together. The subject of our research is so incredibly important. Every single person I work with on this study, whether they are at one of the universities or an employee of the Department of Defense, they all feel the same way. We want to be part of the solution, part of changing those numbers.”

There’s no question suicide prevention intervention can save military lives and beyond. For Cramer, the work is all about providing the system and the individuals within it, more and better tools and training.

“Our work is not just treating active suicidality or recent suicidality,” Cramer said. “It’s also equipping active duty service members with the skills to take forward for future prevention and doing so in a format that creates bonds and gets more people in the door seeking help.”

Michael J. Solender is a Charlotte-based features writer. Reach him at michaelsolender@gmail.com or through his website, michaeljwrites.com.

“We’ve done the legwork in forming a team, building a project, getting funding, setting up something that will hopefully have a clinical end systems impact, and now we get to do the important work.”

Justin Baker,
OSU’s Department
of Psychiatry and
Behavioral Health





Scan to watch a video of the Lakeview Neighborhood Alliance Data Walk.

LAKEVIEW
NEIGHBORHOOD
ALLIANCE
"serving a diverse community with strong families"

DATA DRIVEN

UNC Charlotte's Urban Institute is empowering communities to push for inclusive change

PHOTOS BY KAT LAWRENCE

Municipal organizations, area nonprofits and neighborhood advocates rely on the UNC Charlotte Urban Institute's Regional Data Trust and the Quality of Life Explorer to make informed decisions and create positive change. Here's how the Urban Institute is working with community advocates to ensure that data is not just numbers but also stories that inspire meaningful action.

BY MICHAEL J. SOLENDER

Like many Charlotte-neighborhood community members, Jamall Kinard often asks the question: "What's going on in my neighborhood?" Kinard is the executive director of the Lakeview Neighborhood Alliance and his interest in learning more about his community is rooted in helping lift the historic neighborhood up from concentrated poverty.

He recently joined the board of directors at the Charlotte Regional Data Trust, a community data repository operated and maintained by UNC Charlotte's Urban Institute and governed by a community and University board of directors, which oversees a regional integrated data system. With on-demand neighborhood information such as education, employment, income, home ownership, health care and transportation access, the ability to create actionable neighborhood snapshots is precisely the type of project the Urban Institute is chartered to support. The board also advises on the broader work of the Charlotte Urban Institute, including the Charlotte-Mecklenburg Quality of Life Explorer, a partnership comprising the Institute, the city of Charlotte and Mecklenburg County.

“Lakeview is an Opportunity neighborhood,” said Kinard, referencing the city-wide economic mobility initiative focused on decreasing intergenerational poverty and advancing systemic and structural change. There are often negative stereotypes around neighborhoods of concentrated poverty, and biases around those neighborhoods of why they’re poor. We need to have the historical context of how we got here. Access to and understanding of community data is important to developing our neighborhood’s plans and goals.”

Charlotte’s municipal and nonprofit agencies frequently rely on community data to inform their decision making around policy and program development and resource allocation. They look to the Regional Data Trust and the Quality of Life Explorer as reliable sources of neighborhood information.

A PATH TO USEFUL DATA

Yet data alone only tells part of the story. That’s why there’s a fresh emphasis from the Urban Institute to expand how data is collected and used.

“Research is better when you ask better questions,” said Lori Thomas, Ph.D., executive director of Charlotte’s Urban Institute. “Sometimes people with lived experience have much better questions and know what to ask when researchers like us who haven’t experienced it in the same way, may not. Improving our data infrastructure to better serve our community is a focus for us. We’re democratizing data access and use so people can have direction and self-determination in their own stories.”

Thomas and the Regional Data Trust Board members recognize that some Charlotte neighborhoods — particularly those with lower income levels and home ownership, and heavy social service program participation — are overrepresented in the data collected. She notes that data lacking deeper context can fail to provide a complete picture for decision makers. Thomas and her colleagues are leading a push to expand outreach to improve the process and make it more inclusive and transparent. Thomas recruited Kinard for his hyper-local perspective and to help the board expand its thinking behind the information it collects and reports.

“Meaningful social interventions come about when those who are impacted by decisions made are at the table,” said Thomas. “Jamall is co-chairing a recently created community data advisory committee with Melvin Herring, Ph.D., a fellow board member who directs the social work graduate program at Johnson C. Smith University. We want to build representation for individuals who often are left out of the front part of the data conversation. The data is about them but sometimes does not include their voices in determining how data collection questions are asked, or how data-driven decisions are made.”

Reach and use of the data is broad in the Charlotte community. Members contributing data to and developing programming from the Regional Data Trust include the city of Charlotte, Mecklenburg County Department of Social Services, Charlotte–Mecklenburg Schools, Medic, Atrium Health, Novant Health, Habitat for Humanity, Homeless Management Information Systems, Charlotte Housing Authority, Crisis Assistance Ministry,



“Being a part of the Charlotte Regional Data Trust Board helps make sure that the historical context and the lived experiences behind the data are captured.”

Jamall Kinard



YMCA of Greater Charlotte and more than a dozen others.

How information from the Regional Data Trust and Quality of Life Explorer is used is as varied as its diverse membership. CMPD uses crime and related statistics to determine the effectiveness of Neighborhood Watch and community intervention programs. Charlotte Mecklenburg Library looks at trends in after-school programming. Community groups pull detailed data for use in grant applications. Charlotte’s Urban Institute is there to assist and serve the community and add insight to their applications.

One way the Urban Institute helps community members dig deeper into their neighborhood makeup is through the online analytic tool, the Quality of Life Explorer. Data variables are organized around nine dimensions: character, economy, education, engagement, environment, health, housing, safety and transportation. Dashboard features help users explore these dimensions and generate custom reports. Data previously stuck in stand-alone organization silos is now easily integrated for more comprehensive analysis and reporting.

RECOGNIZING THE NEED FOR CONTEXT

For Kinard, raw data is simply a starting point for discussion. He’s shown the board how without the appropriate context surrounding community data policy development, decisions made can have unintended consequences. He cited the recent discontinuation of a bus route in the Lakeview neighborhood as an example. The decision, based upon the number of housing units in the neighborhood, was absent community input or discussion. It’s had a particularly detrimental impact on the neighborhood residents.

“There was no communication or community involvement in



Jamall Kinard led Lakeview residents on a "data walk" to gather community information, bottom left; Urban Institute research associate Angelique Gaines collaborated in capturing and interpreting the data collected.

the decision," said Kinard. "Many residents depend upon that bus line serving our neighborhood. We have a lower-than-average percentage of car owners here, and public transit is a lifeline for many." Kinard noted the nearest grocery store to the neighborhood is more than three miles away. "With no bus route providing direct access, a trip to the market can be a half-day ordeal involving transfers and great hardship."

Kinard is determined to be part of a wave of community members actively involved in data collection and provide first-hand narratives, lived experience and context behind these numbers to better influence outcomes. "Being a part of the Charlotte Regional Data Trust Board helps make sure that the historical context and the lived experiences behind the data are captured," Kinard said.

Thomas and the Regional Data Trust are working to better educate community members on the data collection process. Charlotte's Urban Institute recently led residents and Lakeview Neighborhood Alliance members on a "data walk" of their neighborhood. The goal was to learn more about what data is captured, how residents can supplement the information with their lived experience and how they can use the information to advocate for resources.

Angelique Gaines, a research associate with the Urban Institute, co-led the community walk with Jamall Kinard. "We gave residents the opportunity to interact directly with data displays," she said. "One data display identified public transportation options closest to the Lakeview neighborhood."

Although the data showed that Lakeview was served by a nearby bus route, residents described this transportation option as not providing them with a direct route to the nearest grocery store or to work, making access an issue for those who relied on public transportation. "Difficult and long commutes were challenges," she continued. "Lakeview residents were able to share their own experiences and help tell a more complete story about access and connectivity."

DATA FOR CITY PLANNING AND BEYOND

The Urban Institute's data analytics tools like the Quality of Life Explorer have reach and application for city and county planners, municipal, social service agencies and beyond. Charlotte native Andrew Bowen is the innovation and data officer for the city of Charlotte. He directs a team that represents the city in partnership with Mecklenburg County and the Urban Institute to administer the Quality of Life Explorer.

Their role is to combine, analyze and contextualize the more than 80 discrete variables found in the tool's database.

"We're often called upon to provide data analytics and trend data," said Bowen, who noted Charlotte's Unified Development Ordinance and the Charlotte Future 2040 Comprehensive Plan are examples of community area planning and visioning processes that take advantage of data analytics.

"One of the things that we were able to do because of the Quality of Life Explorer and the access to so much valuable information is tie and align each of the community plans to their neighborhood profile areas," Bowen said. This allows city planners to compare data points across zip codes."

Bowen, who's joining the Regional Data Trust Board, noted the Quality of Life Explorer category of "character," for example, shows median age, population density, race/ethnicity and vacant land. These elements can be tracked and reported over time. "Ten years from now, after these community area plans are put together and some of the UDO pieces are implemented and visioning gets realized, there's a built-in ability to report, look back and tag all these different elements to a standard unit of analysis. It's a powerful tool."

Charlotte City Council Member Marjorie Molina '22, M.S. in Management is an advocate of the Quality of Life Explorer. She uses the tool to share valuable insights into the demographics and needs of her District 5 constituents. "I recently held a town hall where the Quality of Life Explorer was the star of the room," Molina said.

She remarked that many people make assumptions about the character of her district absent hard data. Reviewing detailed neighborhood statistics was revealing. The custom report indicated the median resident age in her district was much lower (just under 35) than many realized. "There are more young people in our neighborhood than often come to public forums like the town hall," said Molina, noting this informs how and where she can best access these residents for their opinions.

"When I'm asked to weigh in on decisions on issues like the development options for the Eastland Mall site, I want to make sure I'm acting on behalf of those in my district," she said. "It's important to have, for example, an accurate racial, ethnic, age and income makeup to inform on projects like this for fit, economic viability and interest. Often, it's organized [community] voices that are the loudest but not necessarily representative of the majority. That's where tools like the Quality of Life Data Explorer are invaluable."

Thomas says ensuring that a broad range of community voices are heard leads to more buy in. "It is a unique thing we are building to ensure people have representation," Thomas stated. "We are breaking new ground in the community by building up an advisory committee and bringing them into the overall structure and governance of this data asset. We want to view data from a more complete perspective. It leads to better decisions."

Michael J. Solender is a Charlotte-based feature writer. Reach him at michaelsolender@gmail.com or through his website at <http://michaeljwrites.com/>.

LEVELLING UP

BY WYATT CROSER

Niner Esports is earning recognition nationally while enhancing students' collegiate experience

When Jorge Sanchez '23 arrived at UNC Charlotte in 2020, esports was already a major part of his story.

He started playing video games competitively as a 13-year-old, viewing YouTube videos to learn strategies while winning amateur tournaments in the well-known video game franchise "Call of Duty." By high school graduation, Sanchez had an esports résumé that included experience in broadcasting, live streaming and building brands for esports organizations.

Determined to finish his computer engineering degree after attending the College of Southern Maryland, Sanchez transferred to Charlotte.

Sanchez quickly discovered Niner Esports, a student organization at Charlotte since 2013. He joined the club's first "Call of Duty" team and eventually became the club's events director before his election as president of the organization for the 2022-23 academic year.

"I focused on growing the Niner Esports brand, doing everything we could to gain more of a foothold on campus and nationally as a college esports powerhouse," Sanchez said.

Niner Esports, which started with a few dozen students who played games together, has grown exponentially. Sanchez used the club's Discord server to recruit his "Call of Duty" team. That server, a type of online community with text and voice channels for its members, now has more than 2,400 participants, primarily Charlotte students and alumni. For the past six years, Niner Esports has been one of the University's largest student organizations.

ACHIEVING NATIONAL ACCLAIM

Popularity alone doesn't tell the entire success story for this student-run club. In December 2022, UNC Charlotte was among the 10 universities nominated for Collegiate Program of the Year at

the Esports Awards. Nine of the institutions have varsity esports programs, while Charlotte was the only student-led club.

Six months later, Niner Esports won Club of the Year at EsportsU's 2023 Collegiate Awards, and Sanchez was runner-up for Club President of the Year.

"We grew in virtually every area you can imagine," Sanchez said. "The Esports Awards are the top awarding body in esports. To be on the world stage really sets us apart, especially as the only entirely student-run organization nominated."

Niner Esports club members are primarily students who meet to play games, either in person or online, competing in video games of shared interests. The club also has a number of students who work behind the scenes to ensure it operates smoothly. For the 2022-23 academic year, Niner Esports had five executives, 10 team managers and 10 students on the events team. This mirrors the professional esports world.

Pake Cary, Niner Esports' former events director and current co-president, explained how the variety of positions available in esports provide training that translates to areas outside of video games.

"If you aren't a player, you can help coach or manage. At high-profile esports events, there are broadcasts with individuals working in front of and behind the camera," Cary said. "There are many ways to tie your formal education to esports and imagine a career. Most people don't fully recognize the extent of relevant experience that exists in the gaming world."

This fall, Cary is leading Niner Esports along with Alexis Diamond, a game player since age 3. She wanted to be involved with the club as soon as she discovered its existence.

"It has been cool seeing something I'm passionate about become so popular and know there are real jobs for it," she said. "I have had the chance to meet so many people, for which I'm so

\$1.39B

Total esports market value 2022

617M

online hours in 2022 for League of Legends (multiplayer online video game)

170+

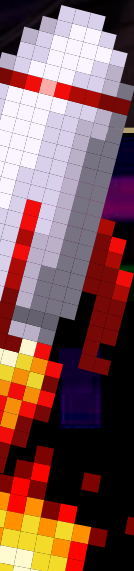
U.S. National Association of Collegiate Esports teams plus thousands of clubs, including Charlotte



“We grew in virtually every area you can imagine. The Esports Awards are the top awarding body in esports. To be on the world stage really sets us apart, especially as the only entirely student-run organization nominated.”

Jorge Sanchez '23

PHOTO BY RYAN HONEYMAN



Niner Esports members recently met with North Carolina Rep. Jason Saine '95, third left, to celebrate a \$1.5 investment from the General Assembly to create a dedicated state-of-the-art esports facility in the Popp Martin Student Union. Joining Saine were Alexis Diamond, Jorge Sanchez, Kevin Bailey, vice chancellor for student affairs, Pake Cary and Chancellor Sharon L. Gaber.



PHOTO BY AMY HART

“Leadership skills are important for any job, and Niner Esports has definitely taught me to take charge and work with others.”

Alexis Diamond



grateful because now they're a huge part of my life, and it is all because of the club.”

Diamond, a computer science major with a concentration in cybersecurity, added, the club is enhancing skills that can translate to any profession.

“Leadership skills are important for any job, and Niner Esports has definitely taught me to take charge and work with others,” said Diamond. “I know many students majoring in computer science and game development find these skills useful.”

EXPLORING ESPORTS CAREERS

“As the esports industry grows, there are additional opportunities at Charlotte for academic connections in areas such as computer science, gaming design and development, video and streaming technology, art and storytelling, and business and marketing operations,” said Kevin Bailey, vice chancellor for student affairs. “Plans are underway to create a dedicated space on campus that will allow the club to continue its expansion in a field that is evolving every day. When you look at Niner Esports’ national recognition and listen to the students’ experiences, it’s clear there are exciting things in store.”

Sanchez, who graduated from Charlotte in May 2023 with a bachelor’s degree in computer engineering, recently accepted a position as esports operations coordinator and talent recruiter at Converse University, where he is enrolled in its master’s degree in management program. Sanchez noted that his time and success with Niner Esports resulted in career options he hadn’t anticipated.

“I really was able to utilize my Niner Esports experience to highlight my qualifications for the position at Converse University. I love engineering, but this new career path will enable me to continue my interest in scholastic esports,” Sanchez said.

During the past year, Niner Esports has established itself among the country’s most highly regarded esports clubs. Success is due to both competitive and casual gamers.

Cary admits Sanchez’s departure leaves “massive shoes to fill.” He and Diamond are prepared to move the club forward, using its recent notoriety as a stepping stone.

“When I learned we were nominated for the Esports Awards, my first thought was ‘Wait, really?’” said Cary. “To me, it means we need to get even better. This is something that will push us even further.”

Wyatt Crasher is an assistant director of communications in the Division of Student Affairs.

DATA ANALYTICS: A GAME CHANGER

Beyond providing teams a winning edge, the \$4 billion sports analytics market is driving customer engagement and expanding partnerships that revolve around advertising and sponsorships, including college esports.

Reid Bost, vice president and esports director of Niner Esports, is bringing that buzz to Charlotte’s gaming club.

“Esports isn’t just about gaming; It is about building a community and creating opportunities for students to act as players, managers, broadcasters or marketers,” said Bost, a senior majoring in computer science in the College of Computing and Informatics.

Bost, who is on track to graduate in December 2023, was instrumental in creating a data analytics team to assist Niner Esports competitors, starting this past spring semester. Thirty students from multiple academic disciplines, who learned the basics of data analytics, informed the teams, coaches and managers on implementing data-driven decisions around specific plays, game strategies and tactics.

As Esports vice president, Bost oversees team management, which includes game rosters and players. He also works with the other executive board members on larger initiatives. He envisions that data analytics will enable Niner Esports to emulate more established collegiate esports clubs.

“There are plans for the analytics team to automate some components of data drawing, establish reporting standards and procedures, and implement statistical or predictive models to help determine outcomes,” said Bost. “As the team grows, Niner Esports analysts will assess rival teams’ playing styles, characters and basic statistics to develop strategies.”

He added a future goal is for analysts to perform video-on-demand reviews, which involve watching replays of Niner Esports games and opponents’ games to create a more detailed approach. Workshops during the fall semester are designed to recruit more 49ers.

Lindsay Lennon is communications and events manager for the School of Data Science.



During Niner Nation Week, UNC Charlotte hosted nearly 50 events throughout the region, entertaining close to 20,000 people infusing them with some serious Niner pride!



Scan to see photos from the 2023 Niner Nation Week Homecoming events





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MEBANE HALL

Dedicated September 2021



Allen Mebane

Learning is a Journey for Future Generations

Allen Mebane believed each of us has a civic responsibility to make a difference and to leave the world a better place. That conviction and a commitment to helping others succeed prompted him to establish the Mebane Foundation in 1998 to support innovative educational endeavors with a focus on funding transformative training opportunities for both in-service and pre-service teachers.

The Mebane Foundation made its first investment at UNC Charlotte in 2009 with the Cato College of Education's reading camp and focus on early literacy. It has since developed Mebane Scholars and Mebane Literacy in the state of North Carolina and beyond.

Allen Mebane's legacy will live on through the Mebane Early Literacy Center in 2024. The center's development and community partnerships will continue to support literacy and innovation exponentially.

UNC Charlotte is proud to further honor Allen Mebane Foundation through the dedication of Mebane Hall.

UNC Charlotte has named the building that houses the Cato College of Education Mebane Hall in honor of a transformative endowment of up to \$23 million from the Mebane Foundation to support early literacy. Joining Chancellor Sharon L. Gaber at the celebration was Dennis N. Bunker III '81, chair of the University's Board of Trustees; Larry C. Colbourne, Mebane Foundation president; and Cato College of Education Dean Malcolm B. Butler.

PHOTO BY KAT LAWRENCE