

LEVINE CONNECTION

FALL 2025
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UNIVERSITY OF NORTH CAROLINA
CHARLOTTE

LEVINE SCHOLARS PROGRAM

As the season of gratitude comes to a close and the season of joy approaches, I look back with fondness on a year that has been full of both for LSP—and look forward with excitement to the year ahead. Just last month, students and staff came together to celebrate Scholarsgiving, a now beloved annual tradition, complemented by the culinary talents of our students and a competitive game of Pointless trivia. Also in November, Chancellor Gaber graciously invited the program back to Bissell House for this year's reception with scholars and their families, where we were able to convey our thanks to the Leon Levine Foundation for their tremendously generous renewal of the Gift that sustains the scholarship and announce and celebrate the very first Marshall Scholarship finalist from UNC Charlotte.

The end of the calendar year marks the start of LSP's recruitment season, and the selection process is off to a wonderful start! As I write, teams of staff, campus partners, and Levine alumni are reviewing semifinalist applications to determine who will join the Levine Scholars Class of 2030. In the spring, eight students will be venturing out into the world for their international experiences. Spain (Barcelona and Seville), Finland, Australia, Italy (Rome and Milan), United Kingdom, Costa Rica and The Netherlands are among their destinations.

No matter where, or in which season, this edition of Levine Connection finds you, we here at LSP send you our very best wishes for 2026, along with our thanks for all you do to support this extraordinary scholarship program.

Sincerely,



Heather Smith
Faculty Director





BELONGING: AN EXPLORATION OF CHINESE AMERICANS IN CHARLOTTE

Belonging: an exploration of Chinese Americans in Charlotte, was a labor of love and the culmination of years of work for LSP alumna Bridgitt Ku '21 and Ellie McCutchen '25. The book is based on research and oral histories of Chinese Americans in Charlotte, collected first by Bridgitt and then Ellie to fill an important gap in knowledge regarding the history, structure and composition of Chinese culture in a major Southeastern city without a prominent Chinatown.

The civic engagement project partnered with History South, a nonprofit under the direction of Dr. Tom Hanchett: a community historian who consults for local organizations and museums. Dr. Hanchett also guides first-year Levine Scholars through spring Charlotte Immersion. Additionally, the Atkins Library at UNC Charlotte helped to provide resources to support the project, including the Goldmine repository and its record of primary resources pertaining to the city of Charlotte's history.





FINDING MY FUTURE AT THE SPEEDWAY

GRACE MARLOWE

During the summer of 2025, I had the privilege of interning at Charlotte Motor Speedway under the direction of Hayley Hood, Manager of Client Services. What began as a chance to gain professional experience quickly became the moment I discovered my career path. I now hope to pursue a future in motorsports and VIP event planning—a dream I didn't even know I had before this summer.

I joined the Corporate Partnerships and Sales Department, where I learned how strategic relationships between major brands and the Speedway come to life. Every project demanded adaptability, precision, and teamwork. Whether I was designing sponsorship proposals, coordinating event logistics or creating



branded materials, I developed confidence as a communicator and learned the power of collaboration in delivering a polished final product.

One of the biggest highlights of my summer was designing a 65-page Coca-Cola 600 recap book, documenting every part of race weekend: from pre-race events and trackside branding to appearances by Congressman Pat Harrigan and U.S. Secretary of Defense (now Secretary of War) Pete Hegseth. Pulling together photos, earned media and exposure data into visual summaries for Coca-Cola helped me see how creative storytelling and strategic reporting merge in the world of sports marketing.

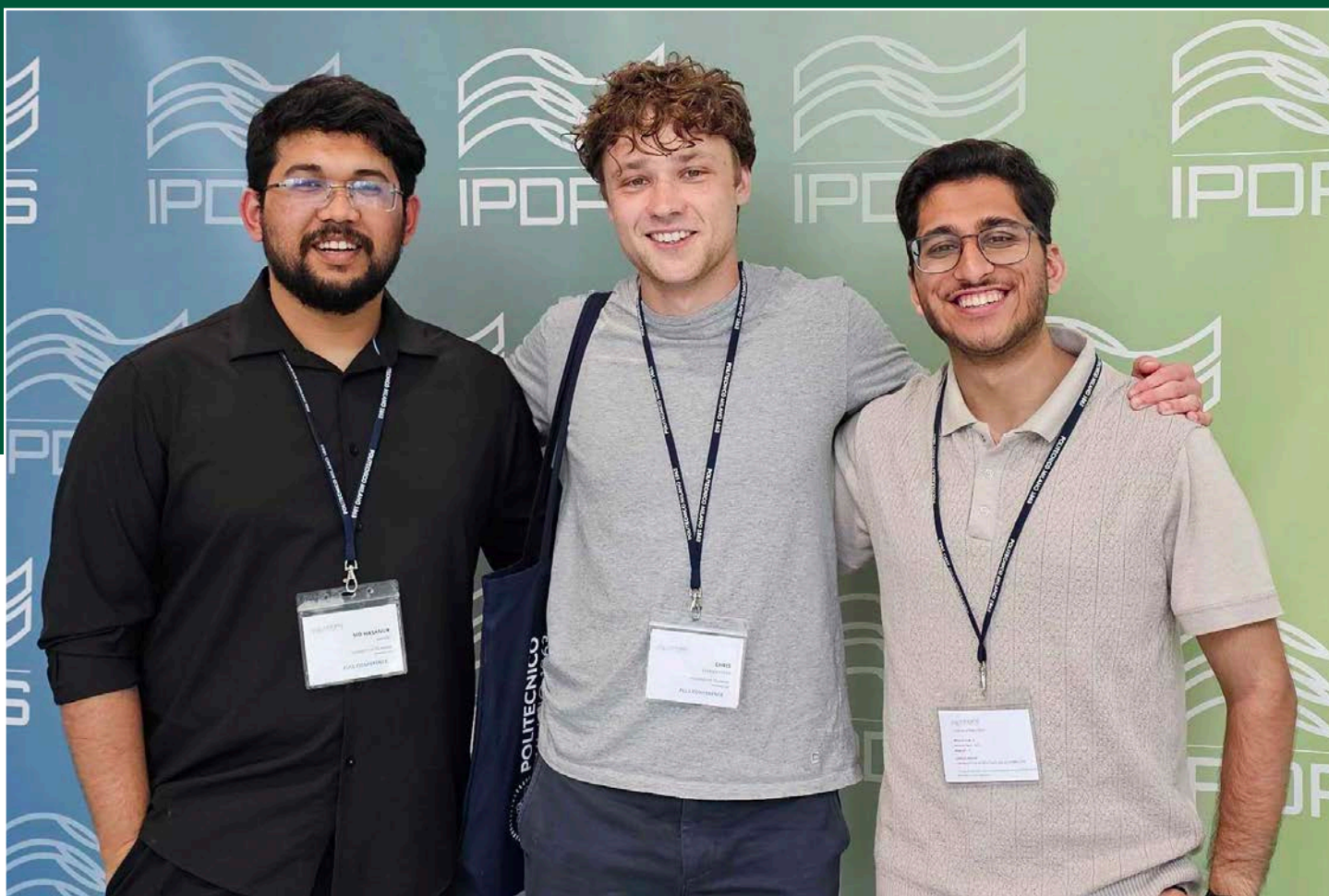
Event coordination quickly became a new passion. I created detailed runs of service for the Coca-Cola 600, and later for partners such as McLaren and Porsche. I learned how to anticipate needs, communicate clearly across teams and design schedules that made complex logistics easy to follow.

My favorite moments were those where creativity met connection. During the Cookout Summer Shootout, I designed sponsor-themed props and fan games, like a Bojangles Bingo Sheet, to make brand activations fun and memorable. I even got behind the mic as an emcee, helping energize the crowd during race cautions.

Throughout the internship, I strengthened my understanding of corporate communication and sales strategy. I designed one-pagers that transformed sponsorship data into clear takeaways and created proposals that reflected each brand's identity. In one pitch for Happy Dad, I mimicked the layout of their packaging and used their signature fonts: a small detail that made a big impression.

I'm excited to share that I will be joining the Charlotte Motor Speedway sales team full-time as Sales Coordinator upon graduation. After an unforgettable summer and fall semester as a Corporate Partnerships Intern, I'm grateful for the opportunity to continue growing with a team that shaped my passion for the motorsports community. Stepping into this role allows me to further support our sales department through client relations, event logistics and behind-the-scenes coordination that brings world-class partnerships and events to life.





FROM ELEVEN-YEAR-OLD DREAMS TO ENTERPRISE DATA

ARNAV SAREEN

There was nothing that eleven-year-old me wanted more than to grow up. The freedom, the independence, the idea of earning real money—it all seemed magical. Fast forward a decade, and twenty-year-old me was trudging across Davidson College's campus, sliding into dress shoes, and bracing for a bike ride to Trane Technologies, where I was a Data Science and Analytics Intern.

While the magic of adulthood was not quite what I imagined, I discovered a new kind of payment that eleven-year-old me couldn't foresee: learning and growth.

My first day at Trane was a shock. I was handed a 36 million row dataset—compared to the one

million row datasets I had previously handled in class—and tasked with developing a product recommendation system for HVAC components. It was intimidating, frustrating, and at times overwhelming, but ultimately transformative.

Learning to navigate, for example, Amazon Web Services (AWS)'s Sagemaker to develop and run all of my models and Google's BigQuery to run SQL queries that helped me explore, transform, and filter those datasets, optimize processes, and produce meaningful visualizations taught me not just technical skill, but discipline, prudence, and deliberate problem-solving. I quickly realized that a minor misstep could derail hours of work—an important lesson in patience and critical thinking.

Beyond coding, I learned the critical importance of aligning data work with business objectives. A model is only as valuable as the insight it provides. Once I understood the company's goals, it became easier to communicate and advocate for my work, a skill that will be invaluable in any professional setting. I've realized that working within a business setting (especially in a company like Trane, where their main focus is HVAC, not tech) explainability of your work is vital, especially when speaking to business executives!

One of the most rewarding parts of the internship was the mentorship and community. Working alongside colleagues and other interns, I learned to collaborate effectively, ask thoughtful questions, and celebrate progress together. These connections made the experience not only educational but also enjoyable.

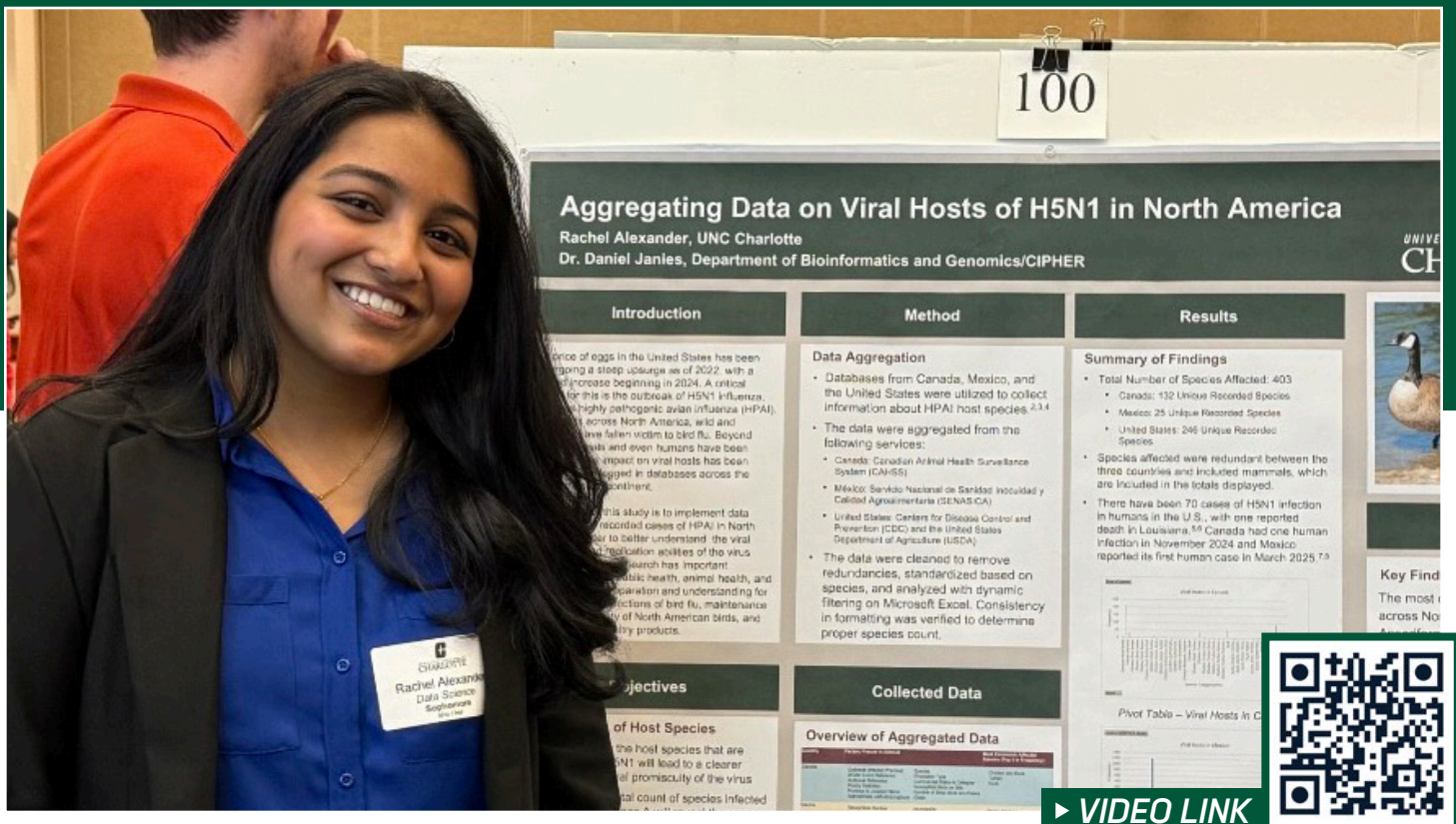
Experiencing industry firsthand gave me perspective on the relationship between academia and applied technology. While I enjoy corporate problem-solving, I realized my greatest joy comes

from rapid learning, curiosity and exploration—traits often cultivated in academic research. This insight solidified my plans to pursue graduate studies in AI and machine learning, combining the rigor of research with the applicability of industry.

By the end of the summer, I had not only mastered technical skills but gained clarity on my career path, professional goals and academic aspirations. The internship confirmed that growth comes from challenge, curiosity and mentorship, and that the best learning often occurs when you step beyond your comfort zone: whether in code, career or life.

"My internship at Trane Technologies showed me how much growth happens when you're challenged. I went from working with small datasets in class to analyzing 36 million rows—and came away more confident, capable, and curious about the future of AI and data science."





GEESE ON CAMPUS AND A VIRUS IN THE WILD: A DEEP DIVE INTO MY EXPERIENCE WITH RESEARCH ON BIRD FLU

RACHEL ALEXANDER

On any given spring day at UNC Charlotte, one can expect to see around ten to twelve geese on average. In fact, these geese have been so central to the campus landscape that the student body has adopted a goose, known to many as Prospector Goose, as an unofficial mascot.

What may be less well-known about geese like our fellow feathered Niners, however, is the fact that many are susceptible to the H5N1 strain of Highly Pathogenic Avian Influenza (HPAI). The H5N1 virus is a form of an influenza virus that predominantly affects birds, or avian species. H5N1 is highly contagious for birds and has the potential to infect whole flocks at a time.

This virus, however, is not just limited to avian hosts; it has been found that more mammal species have become susceptible to H5N1, like cows, cats, and dogs, to name a few. This expansion to unrelated hosts, also known as viral promiscuity, is a key focus of the research currently underway in the lab of Dr. Daniel Janies, housed within UNC Charlotte's Center for Computational Intelligence to Predict Health and Environmental Risks (CIPHER).

As a research assistant in CIPHER, I have been able to contribute to understanding the mechanisms behind this newfound viral promiscuity in H5N1. A portion of the research on



this topic is quantifying the extent to which the virus has become promiscuous, which is done by cataloging host species and geography of infections. I synthesized reporting from Canada, Mexico, and the United States from various databases which allowed our team to see all recorded hosts of this virus within North America. Then, we used a combination of evolutionary trees, analyses of natural selection, and protein structure modeling using artificial intelligence (AI) to discover the fact that H5N1 is increasing in its capacity to infect a broader range of hosts, upwards of 250 birds and mammals, including humans.

When it comes to research in this field, time is of the essence—biology waits for none to take its course, particularly viruses, as strains continue to evolve. Technology is an absolute necessity, and findings like the above example from CIPHER would not be possible without the integration of advanced computational techniques and AI systems to keep pace with viral evolution. In fact, the use of AI in bioinformatics research at UNC Charlotte has captivated the attention of various news outlets, including Queen City News.

This summer, I participated in a Queen City News special that spotlighted this topic: the intersection of AI and academics. Alongside a panel of guests from various positions in education, including UNC Charlotte's very own Dean of the College of Computing and Informatics, Dr. Bojan Cukic, I was able to speak on the various artificial intelligence technologies that have been incorporated into the research in CIPHER, as well as those that I have been using as a student to supplement my learning in my classes.

My experience in research and academics at UNC Charlotte has truly shown me the immense potential within science and technology that can be harnessed for the greater good. I look forward to continuing to grow as a student and hope to continue to make contributions to the promising world of bioinformatics research.

Next time you come across a flock of geese on campus, I hope your curiosity will be piqued with regards to the scientific intricacies they contain. Perhaps the next findings regarding H5N1 will come from observing the local geese on our campus!

Environmental Health

Salud ambiental
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LEARNING WHAT HEALTH REALLY MEANS: MY SUMMER WITH MECKLENBURG COUNTY PUBLIC HEALTH

RISHITA ROKARIYA

When I started my internship with Mecklenburg County Public Health (MCPH), I didn't realize how much it would change the way I see my community—or myself. Working with the Environmental Health unit on the Childhood Lead Poisoning Prevention Team gave me insight into what public health really means: service, empathy and persistence.

Each day brought something new. Some mornings, I joined my supervisor on home visits to investigate

possible lead exposure. Other days, I researched the neurological effects of lead in children or created educational packets for pediatric offices to encourage testing. I even had the opportunity to meet with health directors and members of the Board of Commissioners to discuss how to expand outreach and awareness.

What stood out most were the people I met. Many of the families we worked with were refugees or recent immigrants: individuals who reminded

me of my family's journey. I could relate to their hesitation and uncertainty when interacting with government officials, but also to their determination to build better lives. Seeing their courage deepened my commitment to pursuing a career that helps close health gaps and supports vulnerable communities.

I also shadowed the Meck Dental mobile unit, which travels to schools across the county to provide free screenings. Watching the process helped me understand how systemic barriers, like limited transportation, financial strain or fear of institutions, can prevent children from accessing the care they need. It also showed me how much compassion and creativity go into designing public health solutions that meet people where they are.

On a professional level, this internship helped me grow in ways I didn't expect. I learned to be independent in my work while also asking good

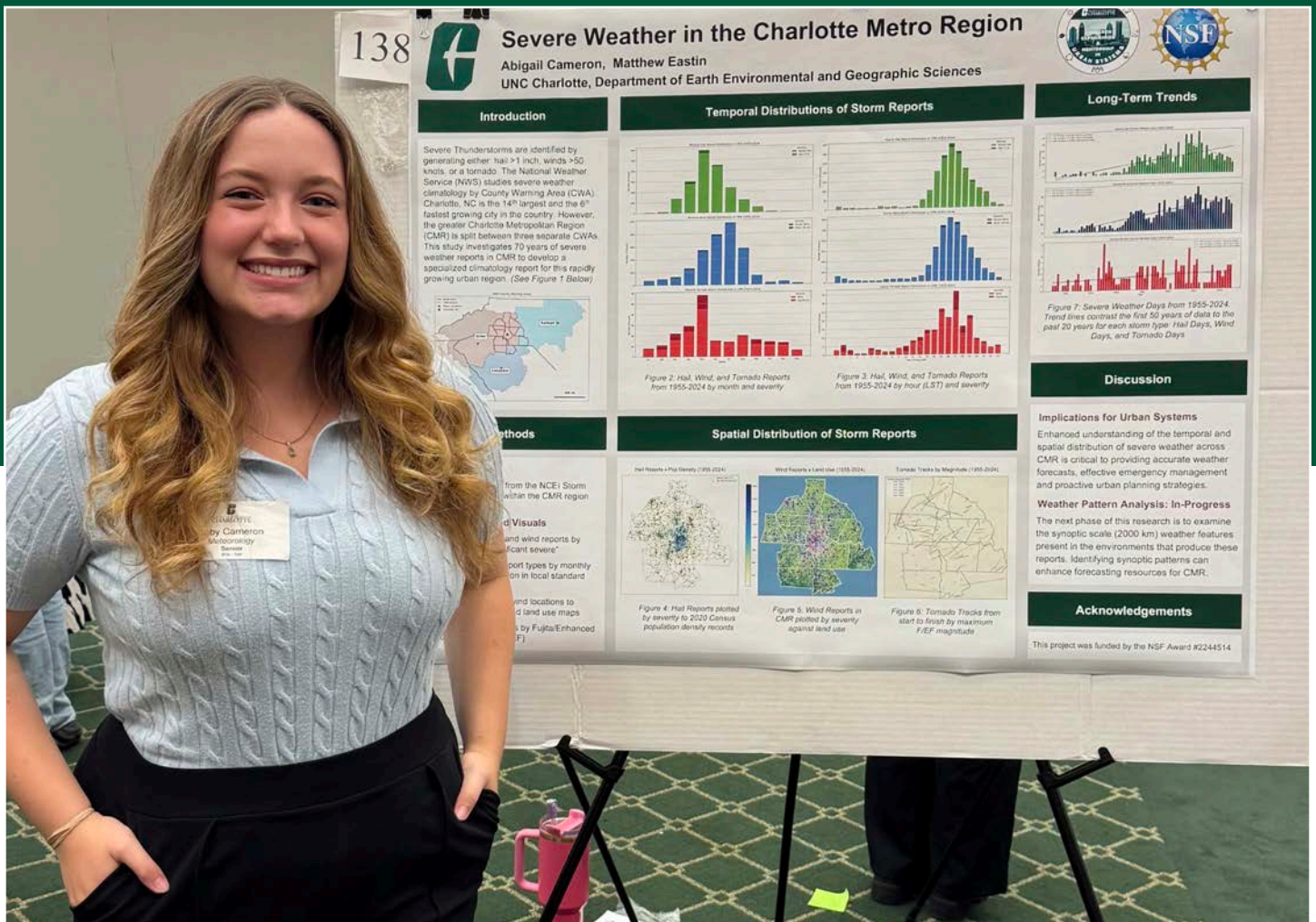


questions when I needed clarification. I gained confidence in reaching out to professionals across departments, from WIC and school health to epidemiology and community outreach. I even created a set of resources to help future interns continue our team's work after I left.

Outside of work, I spent time exploring Charlotte: new cafés, museums, parks, and community events like Taste of Charlotte and the Tianyu Lights Festival. Balancing work with these moments of rest taught me what work-life balance really looks like for me.

Looking back, this internship was one of the most rewarding experiences I've had. It opened my eyes to the realities of health disparities, showed me the power of public service, and reminded me of how much learning happens beyond the classroom. Most of all, it made me grateful for the mentors who supported me, the families who trusted me and the city that's starting to feel like home.





DISCOVERING MY FUTURE IN THE STORMS

ABBY CAMERON

This past summer, I had the opportunity to participate in the Research Experiences and Mentorship in Urban Systems (REMUS) program: an NSF-funded Research Experience for Undergraduates (REU) hosted by the UNC Charlotte Department of Earth, Environmental, and Geographical Sciences. Over ten weeks, I investigated the 70-year history of severe thunderstorms in the Charlotte Metropolitan Region (CMR), ultimately developing the region's first spatial and temporal climatology report.

My journey began in December 2024, when I met with Dr. Matthew Eastin, a professor of Atmospheric Science in the Department of Earth,

Environmental and Geographical Sciences to discuss potential honors research topics. We identified a gap in local weather records and began outlining a project that would analyze long-term thunderstorm trends in the Charlotte area. When Dr. Eastin suggested I apply to REMUS, I jumped at the opportunity.

I applied to a few other programs in Utah, Oklahoma and Pennsylvania, but my first choice was always to stay in Charlotte and continue our collaboration. When I got the acceptance email in March, I immediately said yes and submitted my honors thesis proposal before the program began.

When the program officially started in mid-May, I had almost no experience with Python programming. That changed quickly. With guidance, I learned to manage large datasets, visualize spatial data, and identify long-term storm patterns. My twice a week meetings with Dr. Eastin kept me accountable and ensured steady progress.

At first, coding felt daunting. But as I began creating maps and graphs that revealed real weather trends, the data started to tell a story and I really began to enjoy the process. By early July, I had finished the climatology portion of my project and began refining my abstract and presentation poster.

While much of my work took place behind a computer screen, the REMUS experience went far beyond data analysis. I learned how to collaborate across disciplines, communicate effectively and stay curious about what others were studying. My fellow participants were from universities across the country: each exploring a different aspect of Earth systems from hydrology to sustainability.

Some of the most memorable moments came

outside the lab: releasing a weather balloon, attending a sustainability conference and building friendships with my REU peers. These experiences reminded me that science thrives on community and shared curiosity.

The summer wasn't without challenges. Managing long hours of independent work required discipline; balancing productivity with rest became a key lesson. I learned that I'm most productive when I change my environment, working in a library or lab instead of my apartment, and that taking time for fun and connection keeps me motivated.

Perhaps the most valuable insight I gained was how to communicate openly with my mentor. Being honest about what I did and didn't know allowed us to make faster progress and build a stronger research partnership.

As I look ahead to graduate school, I carry forward the technical skills, resilience and curiosity that REMUS helped me develop. This experience confirmed my passion for severe weather research and taught me that growth happens at the edge of your comfort zone, whether you're chasing storms or learning to code.





Very best wishes for 2026 from LSP Staff!