

ZACH ROBERS

 zachrobers.com  GitHub  LinkedIn  zmr8@duke.edu  (919) 358-7130  Durham, NC

SUMMARY

Creative, interdisciplinary problem-solver with strong technical skills and industry experience as a software developer, along with research expertise in machine learning and applied math. Currently studying mathematics and computer science at Duke University on a full-ride merit scholarship.

EDUCATION

Duke University

B.S. in Mathematics, Computer Science — Minor in Classical Civilizations

Durham, NC
Aug 2023 – May 2027

- GPA: 3.95/4.0
- **Honors/Programs:** Angier B. Duke Scholar (full-ride merit scholarship awarded on *academic leadership and world-changing potential*), University of Oxford: Philosophy and Ethics of AI, Office of University Scholars Advisor Committee, Club Baseball, Sigma Chi President
- **Research:** *Hickey BME Lab:* constructing a diffusion model for tissue generation at the cellular level. *Math+ Summer Program:* formalizing an analytical and computational math model for the interaction between shallow water waves and an elastic solid. Created a machine learning model which placed 4th out of 100+ submissions in the Duke Financial Economics Corporate Valuation Competition.
- **Relevant Coursework:** Theory and Algorithms of Machine Learning, Linear Algebra, Data Structures and Algorithms, Computer Systems, Probability, Asymptotics and Perturbation Methods, Data Science

University of North Carolina at Chapel Hill

Part-time Studies in Mathematics

Chapel Hill, NC
Aug 2021 – May 2023

- GPA: 3.95/4.0
- **Honors/Programs:** Applied Math Fluid Dynamics Laboratory, Precision Health AI Lab, full-tuition merit scholarship
- **Relevant Coursework:** Multivariable Calculus, Differential Equations, Discrete Math, Numerical Analysis

East Chapel Hill High School

Valedictorian (Rank 1 of 356)

Chapel Hill, NC
Aug 2019 – June 2023

- GPA: 4.79 — SAT: 1590/1600 (Math: 800, Reading: 790)
- **Honors/Activities:** U.S. Presidential Scholar Semifinalist, Perfect Score (every question correct) on AP Computer Science Exam, Varsity Baseball Starter, ECHHS Alumni Association, National Honor Society

WORK EXPERIENCE

T. Rowe Price

Data Science Intern

New York, NY
May 2025 – Aug 2025

RepVue

Software Engineering Intern

Remote
Jun 2023 – Aug 2023

- Developed integrations with the OpenAI API to improve web traffic through LLM-generated content, both creating the product outlines and coding the back-end for integrations
- Audited and improved the RepVue Score Algorithm, a holistic approach to providing a quantitative score to represent the quality of work life at a company
- Collaborated with senior developers and product leaders to enhance the company's Ruby on Rails RSpec testing framework

FeedStation

Software Development Intern

Durham, NC
Jun 2022 – Aug 2022

- Designed an automated billing system, coded data pipelines, created a Slack bot, programmed in C#, SQL, and HTML, interacted directly with customers, and worked collaboratively with full-time developers

UNC-Chapel Hill Applied Math Fluid Dynamics Laboratory

Researcher

Chapel Hill, NC
Jun 2022 – Present

- Led a project focused on modeling heat diffusion across complex geometries, utilized partial differential equations, thermal camera imagery, and thermistors to theorize and justify why heat travels faster on a bent path
- Won best undergraduate talk and poster at the Triangle Computational and Applied Mathematics Symposium (TriCAMS)
- Presented at the American Physical Society in Washington D.C. Fall 2023

LEADERSHIP & EXTRACURRICULAR INVOLVEMENT

The Scholastic Artificial Intelligence League (www.sailea.org)

Chair

Remote
Dec 2021 – Present

- Grew the nonprofit from 100 to 2k+ members across 4 continents and 22 US states
- Orchestrated speaker events with professors and executives, created 4 live courses on AI and CS, expanded resource offerings, orchestrated a grant for AI clubs, and assembled a worldwide leadership team

The East Chapel Hill Alumni Association (www.echhsalumni.org)

Founder, Chair

Chapel Hill, NC
Jan 2022 – Present

- Assembled a nationwide board of directors and a student leadership team for the officially registered nonprofit
- Managed a fundraising initiative for campus beautification which has raised over \$10k
- Created a mentorship program, acquired alumni contacts, designed website, curated a blog and social media

EXTRAS: Marathon finisher, avid reader, weightlifter, baker, and chef; loves dogs, traveling, and always learning