Zachary Ward Goldston

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Education

- **University of Michigan, Ann Arbor (CoE)** — Ann Arbor, Michigan
  Bachelor of Science in Engineering - Computer Science, Mathematics Minor; GPA: 3.86 — *August 2019 - May 2023*
  Courses: *Operating Systems, Data Structures and Algorithms, Machine Learning, Computer Organization, Foundations of CS, Linear Algebra, Probability and Statistics, Mathematics of Finance, Programming Languages, Compilers, Deep Learning,* ***Computer Networks, Combinatorics and Graph Theory***
  Activities and Societies: *Tau Beta Pi, Michigan Mars Rover, Eta Kappa Nu, Math Club, Michigan Hackers, Cello, Supplemental Instructional Leader for EECS 280, Quantitative Investment Society*

Experience

- **University of Michigan - College of Engineering** — Ann Arbor, Michigan
  EECS Instructional Aide (EECS 280, EECS 445, EECS 490) — *August 2021 - present*
  - Part of teaching staff for upper level courses (Machine Learning, Programming Languages) and a main-sequence course (Programming and Data Structures) in Computer Science
  - Aid students in understanding concepts and completing assignments through office hours and lab sections, test student understanding by writing exams, and improve the course and methodology via student feedback
- **Tau Beta Pi - Michigan Gamma Chapter** — Ann Arbor, Michigan
  Chapter President — *April 2022 - December 2022*
  - Developed semester long chapter vision for post-COVID activities, while representing the chapter at a national level at conferences
  - Approved $100k endowment for our chapter's initiative fund to sustain financial security, with annual endowments to follow
  - Improved chapter's relationship with the Office of Student Affairs to rework our mailout to stay compliant with FERPA regulations
- **Capital One** — Chicago, Illinois
  Software Engineering Intern — *May 2022 - August 2022*
  - Worked within Core and Lending as a Service to fix reporting and data issues with internal website hosting APIs, datasets, and data stream
  - Used combination of TypeScript, NgRx, and Angular framework to fix system issues, coupled with Java Spring for backend
  - Developed new metric to report max approved transactions per second at endpoint and client levels
- **Michigan Mars Rover** — Ann Arbor, Michigan
  Navigation Subteam Lead — *April 2021 - June 2022*
  - Oversaw team of 8 students in the development of C++ software for the autonomous navigation portion of URC
  - Ran integration tests to mock competition standards, oversaw 200% increase in average auton score
  - Worked on refactoring existing code and adding robustness to handle poor detection from camera data
- **CME Group** — Chicago, Illinois
  Software Engineering Intern — *May 2021 - August 2021*
  - Developed real-time visualizations in Q and KX Systems via kdb+ to replace non-realtime Tableau Dashboards
  - Learned how mercantile exchanges operate through info sessions on contracts, clearing house, and other services
  - Finished 4th in company-wide intern trading competition

Skills Summary

- **Languages**: C/C++, C#, CUDA, Python, Java, JavaScript, TypeScript, OCaml, MATLAB, Rust, Q
- **Tools**: Docker, Redux, Git, KX Systems, kdb+, LaTeX
- **Frameworks**: Angular, Spring
- **Platforms**: Ubuntu, Arch, Web, Windows, Arduino

Honors and Awards

- University Rover Challenge, 1st Place - June 2022
- Jane Street Estimathon @ Michigan, 3rd Place - March 2022
- Lou R. & Marguerite M. Crandall Scholarship - August 2021
- Boeing Company Scholarship - November 2020
- Dean's List + University Honors - Various Semesters