

Conner Rose

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EDUCATION

University of Michigan, Ann Arbor, MI

Expected May 2026

B.S.E. and M.S.E. in Computer Science (with a lot of math for fun)

GPA: 3.75/4.0

- **CS Coursework:** Data Structures and Algorithms, Discrete Math, Machine Learning, Computer Organization, Computation Theory, Web Systems, Advanced Operating Systems, Formal Verification of Systems Software, System Design of a Search Engine, Distributed Systems
- **Mathematics Coursework:** Calculus I-IV, Linear Algebra, Combinatorics and Graph Theory, Probability, Real Analysis, Graduate Probability Theory, Advanced Linear Algebra, Discrete State Stochastic Processes, Graduate Topology

EXPERIENCE

IMC Trading, Chicago, IL

June – August 2025

Incoming Software Engineering Intern

Bloomberg L.P., New York, NY

June – August 2024

Software Engineering Intern – Enterprise Data, Index Core Data

- Designed and implemented dependency resolution and automated testing tool using **Python**, used by team of **80 engineers**, reducing turnaround time when modifying bond formulas in distributed calculation engine
- Expanded testing coverage from single-field to **end-to-end**, identifying existing bugs in calculation pipeline, and preventing bugs from being introduced that would not have been identified previously, resulting in more **robust system**

Traders At Michigan, Ann Arbor, MI

September 2023 – Present

Head of Software Engineering

- Design and deliver advanced SWE curriculum to club members, supporting their SWE interview and career preparation

Bloomberg L.P., New York, NY

May – August 2023

CTO Office Intern – Compute Architecture and OSPO

- Designed automated access revocation system using **Python** and **LDAP**, deployed to **Docker**-containerized **Jenkins Pipeline**, ensuring appropriate removal of inactive accounts from Bloomberg's open-source GitHub repositories
- Developed GitHub crawler using **Python** to scan all projects contributed to by Bloomberg employees over 10 years, automating contribution cataloging and open-source license compliance verification, increasing audited projects by **3x**

PROJECTS

Omakase (Trading Game)

March 2025

C++20, TypeScript, React, WebSockets

- Developed real-time ETF trading game, played at UMich Trading Competition by **120 players concurrently**
- Implemented high-performance matching engine in **C++**, achieving average order processing time of **75ns**, with **WebSocket**-based communication protocol to support high trading volume, avoiding continuous polling
- Utilized **state machine replication** to ensure consistent state resulting from potential backend crashes and reboots

Network File Server

December 2024

C++20, Boost, Multithreading, Socket Programming, File Systems

- Designed and implemented **highly-concurrent** network file system in modern **C++**, using **Boost** upgradeable reader-writer locks for increased concurrency, while guaranteeing disk consistency in the event of crashes

Operating System Kernel, C++20

October - November 2024

- Designed and implemented **virtual memory manager** in **C++**, capable of servicing concurrent malloc/mmap requests
- Wrote a scheduler and threading library in **C++**, including **mutexes** and **condition variables**, with **multi CPU support**

COMPETITIONS

University of Michigan Collegiate Poker Tournament

October 2024

- Placed 4th of 108 students from universities across the country, securing \$500 in prize money (played well, ran hot)

IMC Prosperity 2, Python

April 2024

- Utilized ETF arbitrage, pairs trading, game theory simulations, and other strategies to place 53rd of 9,140 (**top 0.58%**)

TECHNICAL SKILLS

Languages: C++, Python, Go, JavaScript/TypeScript, HTML/CSS, SQL, \LaTeX

Tools: Linux, Git, Docker, Jenkins, Django, React, PostgreSQL, MongoDB, Pandas, NumPy, (Neo)Vim, Tmux