

Ethan Havemann

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EDUCATION

Northwestern University

Evanston, IL

B.S. in Computer Engineering

Expected June 2025

- Minor in Mathematics; Residential Assistant ('22-'25); GPA: 3.8/4.0; Major GPA: 4.0/4.0.
- Relevant Coursework: Operating Systems, Distributed Systems, (Advanced) Computer Architecture, Compiler Construction, Computer Networks, Data Structures, Statistical Learning, Stochastic Processes

EXPERIENCE

Optiver

June 2024 – Present

Software Engineering Intern - High Frequency Trading Execution

Austin, TX

Amazon Web Services (AWS)

June 2023 – August 2023

Software Engineering Intern – People Screening

Seattle, WA

- Designed and implemented fully automated screening and case lifecycle management pipeline using Java and AWS.
- Built novel system consuming JSON to dynamically create business rules, configured to consume from a prebaked UI for non-technical consumers. Worked extensively with other teams to resolve blockers and interteam issues.
- Automated case maintenance actions within the US, removing over 10k human interventions per month.

Amazon

September 2022 – December 2022

Software Engineering Intern – Advertising Data Compute Orchestration Team

Boulder, CO

- Refactored existing job runner to allow reporting of metrics as well and make design more extensible, develop automatic monitoring microservice for internal EMR fork, surfacing metrics for 250M+ daily spark jobs.
- Worked extensively with Java, AWS EMR, Lambda, SNS, EC2, and DynamoDB to make team's product more lightweight, implemented prototype release pipeline to make adoption orders of magnitude cheaper and faster.
- Served as domain expert in team development setup, served as onboarding buddy for SDE and TPM in November.

Acorn Genetics – Genetic Testing Startup

May 2022 – September 2022

Software Engineer Intern

Evanston, IL

- Lead on Acorn's SANDY genetic processing library (Python), maintaining feature parity to industry leader.

Northwestern University

September 2023 – Present

Teaching Assistant, Guest Lecturer

Evanston, IL

- Undergraduate Teaching Assistant for Computer Science 213 - Intro Computer Systems (Fall 2023, Winter, Spring 2024), and Industrial Engineering 304 - Statistical Learning (Winter 2024).

PROJECTS

Northwestern Financial Technologies Club | *Founder and President*

January 2022 – Present

- Lead/Principal Engineer for 30+ student developers across 6 teams, building everything from backtesting engines and contest exchanges to distributed trading games and over-engineered websites.
- Steer technical and programmatic direction of organization, implementing faculty lectures, alumni interaction, optimization and prediction competitions, firm visits, and more to improve awareness of quantitative finance.
- Work with team leaders, faculty, and career office to build cases and systems for future NU Trading Contest.

Walkway - EE/CS 499 | *Independent Study*

March 2022 - Present

- Graduate Study advised by Professors Ilya Mikhelson and Zhaoran Wang on applied RL in Crypto Futures.
- Built in-house research platform, data pipelines, cloud agnostic deployment code, and feature extraction engines.

HONORS AND AWARDS

2023 UChicago Trading Contest | *Team Lead, 3rd Place Market Making, 5th Place Portfolio Optimization*

Correlation One Terminal Algorithm Contest | *Season 8 Top 100 Global, Peak Rank 20*

TXSEF | *State Finalist; Project: Microcontroller Powered (Go) Consumer-Scale Martian Biosphere*

TECHNICAL SKILLS

Programming Languages: Python, C++, Go, Java, R, Verilog, Typescript, C, Bash, \LaTeX

Technologies: UNIX (RHEL/Rocky, Ubuntu), Cloud Infrastructure, APIs, Concurrency, Data Systems

Developer Tools: Git, GitHub + Actions, SSH, Terraform, Ansible, Cloud Platforms, Valgrind, (Neo)Vim, TMUX