

ETHAN STERLING

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EDUCATION

Northwestern University

Evanston, IL

Master of Science in **Computer Science** and Bachelor of Arts in **Economics**, Minor in **Data Science**

Expected June 2026

Cumulative GPA: **3.8/4.0** | Dean's List | Innovation Fellowship | Honors Math Program

Coursework: Data Structures and Algorithms, AI, Linear Algebra, Discrete Math, Econometrics, Game Development, Data Science & Machine Learning, Computer Systems, Languages, Data Visualization, Agile Development, Agent-Based Modeling

TECHNICAL SKILLS

Programming languages: Python, Java, C, C++, JavaScript, SQL, STATA, Swift, C#, R, Assembly, LISP, LaTeX

Software and technologies: Pandas, NumPy, Matplotlib, AWS, Git, Gitlab, Unity, Unix shell, Xcode, Visual Studio, Jupyter, React, Firebase, NPM, NetLogo, Spring Boot, Hibernate, Docker, Terraform, H2, Mockito, WildFly, Jenkins

RELEVANT EXPERIENCE AND PROJECTS

Federal Reserve Bank of Chicago

Chicago, IL

Software Engineering Intern

June 2024 – Present

- Design and develop critical RESTful APIs using Spring Boot to replace database links, aiding cloud migration effort
- Leverage Docker and Terraform, Mockito unit tests, and build GitLab CI/CD pipelines for deployment and scalability
- Support FedLine Solutions, securing payment services for 100,000 users, moving 5 trillion dollars daily

Prescience Lab

Evanston, IL

Research Assistant

April 2024 – Present

- Scale functional programming language MaPL to a distributed memory environment using MPI and C
- Develop efficient parallel garbage collection for MPL, scaling to hundreds of cores and 1TB+ heap sizes
- Optimize whole-program compilation with MLton for performance competitive with C/C++

Schedule Monkey

Chicago, IL

Personal Project

September 2023 – Present

- Create a comprehensive tool for managers to schedule employees based on availability and preferences, leveraging React.js and Redux for dynamic, user-friendly interfaces, and Node.js with Express.js for robust RESTful APIs

SETI Institute

Mountain View, CA

Research Assistant

September 2023 – December 2023

- Parallelized signal processing code base with POSIX threads, AVX-512 SIMD, OpenMP, achieving a 60x speed-up

Fulminare Holdings

San Diego, CA

Software Engineering Intern

June 2023 – September 2023

- Wrote programs in Swift for data imports from other apps to improve user transitions to poker bankroll tracker
- Marketed app by creating Twitter bot using OpenAI API to post daily threads increasing app users by 8,000+

LEADERSHIP AND WORK EXPERIENCE

Mayfest Productions

Evanston, IL

Executive Producer, Producer (August 2023 – June 2024), Production Assistant (November – August 2023)

June 2024 – Present

- Lead a team of 12 to produce Dillo Day, the nation's largest student-run music festival, attended by over 14,000
- Execute contracts and collaborate with 16+ artist teams and vendors to fulfill technical and hospitality needs

Northwestern University

Evanston, IL

Undergraduate Teaching Assistant

Winter 2024

- Taught and assisted a class of 200+ students in COMP SCI 213: Intro to Computer Systems
- Hosted office hours to support students with machine basics, cache performance, virtual memory, and scheduling

INTERESTS & ACTIVITIES

Clubs: Track Club (Events Chair), Northwestern Capital Management (Quantitative Analyst), Alpha Epsilon Pi (President), Undergraduate Economics Society, Undergraduate CS Society, AI Club, Responsible AI Student Organization

Hobbies: Music production, DJing, Skiing, Scuba Diving, Video games, Weight lifting