Zephaniah Roe

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EDUCATION

The University of Chicago, Chicago, IL

Bachelor of Science in Computer Science. Expected, June 2026

GPA: 3.84 / 4.0

EXPERIENCE

University of Chicago Existential Risk Lab, Remote

AI Security Team Lead: (January to September 2025)

- Led the effort to create the XLab AI Security Guide, a resource for learning about jailbreaks and adversarial robustness
- Coded the website for the guide and led the effort to design and code the xlab-security python package
- Wrote prose and designed supplemental coding exercises for many sections of the website

Supervised Program for Alignment Research (SPAR), Remote

Research Fellow: (January to September 2025)

- Performed activation patching and trained linear probes to study how diffusion policy robots make decisions
- Researched small autoencoders to understand how neural networks store information and wrote up <u>results</u>

Justice Text, Remote

Software Engineering Intern: (June to August 2024)

- Implemented React UI components and performed frontend optimizations to reduce API calls and ensure reliability
- AWS DynamoDB transaction logic and Node is to implement backend APIs for full-stack applications

University of Chicago Harris School of Public Policy, Chicago, IL

Research Assistant: (January to June 2024)

- Automated a Python process to scrape Afghan government websites to download PDFs for name extraction
- Employed Anthropic and OpenAI APIs to extract names from Afghan government documents to track trends in employment status of individuals over time
- Performed statistical analysis on metadata present in images, PDFs, and Excel files from Afghan ministries

PROGRAMMING

- Languages: Python, C, Rust, Javascript, Typescript
- Projects:
 - o Toy Models of Superposition Paper Replication: a replication of an Anthropic research paper
 - o Neural network from scratch: neural network training implemented with only the standard library in C
 - o Blog post on gpt-oss jailbreaks: investigation of chain-of-thought jailbreaks on OpenAI open source models
- Technologies: OpenAI and Anthropic APIs, git, SVN, Vim, VS Code, gdb, DynamoDB, Linux, LaTeX, etc.

ACTIVITIES

UChicago Existential Risk Laboratory

Club Organizer (August 2024 to present)

- Helped lead the UChicago XLab AI Safety Club, growing the group from 0 to over 60 involved students in one year
- Coded our website, helped create our intro-curriculum, facilitated fellowship meetings, and helped organize events

UChicago Institute of Politics TechTeam / Genesys Works

Project Co-Leader (January 2024 to October 2024)

- Led a team of over 10 undergraduate and masters students to build software for the non-profit Genesys Works
- Oversaw the codebase that will be used in three major US cities to pair hundreds of low-income students with internships

UChicago Alt Protein Project

Research Leader (September 2024 to present)

- Led the computational/ML project for UChicago's alternative protein research accelerator
- Advised a group of 5 undergraduate students and pioneered a novel approach to protein classification

Other UChicago Activities: UChicago Effective Altruism, UChicago Boxing Club, UChicago Rationality **Other Interests:** Classical Latin prose and poetry, prediction markets, boxing, balloon twisting, rap music