

ELAINE ZHU

✉ zhu.lae@northeastern.edu 🌐 <https://elaine.foo> 📍 Boston, MA

EDUCATION

Northeastern University

Sep 2022 - May 2026

Bachelor of Science in Cybersecurity and Criminal Justice

Boston, MA

- Honors: University Honors Program, Dean's List (all semesters), Magna Cum Laude
- Relevant courses: Object Oriented Design, Systems Security, Computer Networks, Programming Languages

PUBLICATIONS

- Longpre, S.*, **Zhu, E.***, Ezell, C.*, Ghosh, A.*, et al. (2026). *FLARE-AI: Flaw Reporting for AI*. International Conference on Machine Learning 2026. <https://arxiv.org/abs/2606.31567>
- **Zhu, E.**, Coombes, C., Teja, S., & Patterson, D. (2025). *FEEDBOT: Formative Design Feedback on Programming Assignments*. In Proceedings of the 30th ACM Conference on Innovation and Technology in Computer Science Education, 1, 576–582. <https://doi.org/10.1145/3724363.3729063>
- Khezresmaeilzadeh, T., **Zhu, E.**, Grieco, K., Dubois, D. J., Psounis, K., & Choffnes, D. (2025). *Echoes of Privacy: Uncovering the Profiling Practices of Voice Assistants*. Proceedings on Privacy Enhancing Technologies Symposium, 2, 71–87. <https://doi.org/10.56553/popets-2025-0050>

* = equal contribution

SELECTED EXPERIENCE

PricewaterhouseCoopers

Aug 2026 - Present

Cybersecurity Consulting Associate

Boston, MA

- Engineered a DMZ traffic anomaly detection system by training ML models and leveraging BigQuery and Google SecOps to analyze incoming traffic from 500+ hosts.
- Designed Claude skills to automate TPRM workflows, orchestrating risk assessment, data extraction, and third-party evaluation processes.

PricewaterhouseCoopers

Jul 2025 - Dec 2025

Cybersecurity Consultant Co-op

Boston, MA

- Conducted due diligence reviews of third-party vendors, analyzing documentation and controls to ensure alignment with regulatory and industry standards.
- Designed intelligent threat hunting agents in Python leveraging machine learning and natural language processing frameworks.

Cybersecurity and Privacy Institute at Northeastern University

Jan 2023 - Present

Research Assistant

Boston, MA

- Co-authored publications investigating voice assistants' profiling practices and custom pedagogical tools efficacy.
- Programmed Python scripts to automate processes such as web scraping, improving efficiency by up to 90%.
- Investigating surveillance pricing and price discrimination of food delivery platforms.

Northeastern University

Aug 2024 - Apr 2025; Jan 2026 - Apr 2026

Teaching Assistant, Content Team Lead

Boston, MA

- Optimized Racket-based autograder for CS2500, enhancing grading efficiency.
- Collaborated with professor to develop assignments for 500+ students, ensuring alignment with course objectives.
- Conducted lab sessions and office hours, providing technical guidance in Racket programming.

Fidelity Investments

Jun 2024 - Aug 2024

Cybersecurity Intern

Boston, MA

- Mapped technologies for Zero Trust Architecture initiative, improving security alignment with ZTA principles.
- Created technical documentation and ML security code using Python libraries including IsolationForest.

SKILLS

Languages: Python, Java, Racket, SQL, HTML, CSS, Bash, Pyret, JavaScript, TypeScript, C

Skills and tools: Wireshark, Ghidra, Burp Suite, Selenium, Linux, penetration testing, reverse engineering

PROJECTS

Landmarkr	October 2025
- Developed a React/TypeScript game with serverless backend, implementing caching strategy that reduced API calls by 90%. - Built multi-tier caching architecture with timezone-aware invalidation reducing API calls by 90%.	

AI Flaw Reporting Form	September 2025
- Built an AI flaw reporting system using Python with dynamic form logic and automated routing to stakeholders. - Programmed schema validation pipeline using Pydantic models and pyld JSON-LD processing with automated semantic data transformation and cross-format serialization.	

BGP Router	October 2024
- Developed a Python-based BGP router supporting IPv4 and JSON-formatted communications for route updates and data forwarding. - Implemented advanced routing algorithms with longest prefix matching and a five-tiered decision process to ensure optimal route selection.	

LEADERSHIP & SERVICE

NeurIPS 2026 Workshop on Child Safety in AI	Sep 2026
<i>Program Committee; Reviewer</i> A workshop bringing together researchers, practitioners, and policymakers to address the technical and sociotechnical challenges of protecting children in AI ecosystems.	

Duolingo English Test	Sep 2023 - Dec 2024
<i>Student Advisor / Auditor</i> - Audited software for the Duolingo English Test and ensured that testing infrastructure adheres to accessibility and security best practices. - Presented findings to a group of 50+ Duolingo team members, including CEO Luis von Ahn.	

PRESS & MEDIA

What You Say to Google Assistant and Alexa (but Not Siri) Gets Used for Ad Targeting. Here's How.	Sep 2023
<i>Consumer Reports</i>	
Duolingo English Test for U.S. College Admissions	May 2024
<i>US News</i>	
What voice assistants like Alexa know about you – and how they use it	Sep 2024
<i>New Scientist</i>	
From programming to policy, Khoury undergrads research tough tech questions	May 2026
<i>Khoury News</i>	
You Can Now Sound the Alarm on AI Behaving Badly	Jun 2026
<i>WIRED</i>	

AWARDS

Exceptional Undergraduate Researcher	Mar 2026
<i>Khoury College of Computer Sciences</i> Awarded to one individual annually who showcases impact and technical rigor through their research contributions; nominated and voted on by faculty members in the college.	
PEAK Fellowship Summit Awardee	Aug 2024; Jan 2025; Jan 2026
<i>Northeastern University</i> Awarded to individuals who demonstrate the ability to independently work on sophisticated research projects; awardees receive a \$3000 stipend.	