ELAINE LY

NSF CYBERCORPS SCHOLARSHIP FOR SERVICE

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EDUCATION

The George Washington University	**Washington, DC**
M.S. in Cybersecurity in Computer Science	**Sept 2024 - May 2025**
The George Washington University	**Washington, DC**
*B.S. Computer Science	Cybersecurity Concentration*	**Sept 2021 - May 2024**

Relevant coursework: Cybersecurity and Governance, Information Ethics, Usable Security and Privacy

PROFESSIONAL SKILLS

Programming languages: Python, Java, C/C++, HTML/CSS/Javascript, Bash, Matlab, R, SQL
Software skills: Git/Github, IDEs (VSCode), Operating Systems (Linux/Windows), Virtualization (QEMU, KVM, VMWare, VirtualBox), Cloud (AWS), Disassemblers (Ghidra), CTF tools (Nmap, Wireshark, Metasploit, Binwalk, John the Ripper); Microsoft Office Suite, Google Suite
Hardware skills: Embedded boards (Arduino, Raspberry Pi); Soldering

EXPERIENCE

MIT Lincoln Laboratory	**Lexington, MA**
CYBER SYSTEMS RESEARCH INTERN	**May 2024 – August 2024**

- Contributed towards open-source research on firmware rehosting and repeatable dynamic binary analysis, specifically via Platform for Architecture-Neutral Dynamic Analysis (PANDA)
- Co-engineered a state-of-the-art, minimally invasive approach to current continuous glucose monitoring solutions in the Intern Innovative Idea Challenge (I3C) and presented to the Director's Office

GW Usable Security and Privacy Lab	**Washington, DC**
SECURITY AND PRIVACY STUDENT RESEARCHER	**August 2023 - Present**

- Organized administrative tasks in the Security and Privacy Lab, including survey deployment and analysis on Qualtrics, conducting interviews and documenting key insights, and contributing valuable input on research direction
- Focused on technology-enabled intimate partner violence, online exam proctoring user security concerns, and web accessibility for marginalized communities

Two Six Technologies	**Arlington, VA**
ELECTRONIC SYSTEMS RESEARCH INTERN	**August 2022 - October 2023**

- Investigated novel kernel developments with Computing Express Link (CXL) to identify and understand 3 critical memory protocols for secure next-generation computing
- Created command line and GUI tools for flash memory vulnerability research on embedded system platforms

UI/UX OPERATIONS INTERN	**June 2022 - August 2022**

- Resolved 7 usability and privacy issues for a cyber operations application using Ember.js, HTML, CSS Flexbox/Grid, and Jira
- Led a team of 11 interns on project documentation; assembled and led cumulative presentation to group of 10+ executives at end of internship, showcasing integration of live sensor data into company platforms

Export-Import Bank of the United States	**Washington, DC**
BUSINESS OPERATIONS STUDENT TRAINEE	**May 2023 - August 2023**

- Spearheaded an initiative to document 3+ division-specific processes to manage the Bank's call center and Salesforce customer relationship management platform; queried ideas to improve security of bank-wide user platforms
- Drafted Standard Operating Procedures (SOPs) for different executive groups with a team of 5 interns to ensure transparency in the Bank's decision-making processes

George Washington University	**Washington, DC**
CURRICULUM DEVELOPMENT INTERN	**January 2022 - May 2023**

- Leveraged shell scripting, technical writing, and several programming languages to develop 2 master's courses, Linux Fundamentals and Human-Computer Interaction
- Arranged and coordinated meetings with other team members and professors to ensure all deliverables meet and exceed expectations

KTL Consulting, Inc   **Falls Church, VA**
SOFTWARE DEVELOPMENT INTERN   **May 2021 - July 2021**
- Developed 2 full-stack web applications using modern frameworks such as ReactJS, MongoDB, and Python
- Constructed and deployed multiple search-based applications over span of 3 months

NASA ADC   **Falls Church, VA**
CO-LEAD DEVELOPER   **August 2020 - November 2020**
- Developed a desktop application to graph 1M+ data points into 2D and 3D training models of lunar surface for the Artemis 2024 mission
- Co-directed programming and organizational efforts among a team of 5 individuals; mentored 3 team members to master programming basics

LEADERSHIP EXPERIENCE

Virginia Cybersecurity Students (VCyS) NOVA   **Washington, DC**
Executive Board Member   **July 2024 - Present**
- Working on co-founding a student-led node backed by the Virginia Commonwealth Cyber Initiative (CCI) to strengthen Virginia's cybersecurity posture and foster interconnectedness between cybersecurity professionals throughout the DMV region

Women in Cybersecurity (WiCyS)   **Washington, DC**
Co-President   **January 2022 - Present**
- Established WiCyS on GW campus, creating a vibrant networking sphere from the ground up of over 200+ women and allies in technology and national security in the DMV
- Organized 8+ school-wide events per semester, collaborating with representatives from 10+ major national security agencies and companies, including Google, MITRE, Department of State, Department of Energy, and others to expose students to industry opportunities for cybersecurity
- Mentored 15+ undergraduate and graduate students interested in cybersecurity and provided one-on-one guidance and strategy for career and academic planning

Society of Asian Scientists and Engineers (SASE)   **Washington, DC**
Co-President   **September 2021 - May 2024**
- Planned and executed monthly activities including career services, study nights, and cultural celebrations
- Collaborated frequently with 4+ student organizations on campus and serves 20+ students per event
- Led advertisement initiatives with the SEAS community and expanded student membership to 90+ members enrolled on Engage platform

GW China Affairs Forum (CAF)   **Washington, DC**
Research Contributor   **February 2023 – May 2023**
- Contributed towards research on US-China strategic competition over cyber-AI and autonomous weapons systems evolution.

SERVICE LEARNING

Wildlife Rescue League   **Northern Virginia**
Helpline & Marketing Volunteer   **August 2020 - May 2024**
- Provided specialized wildlife advice and transportation to 1K+ community members
- Managed spreadsheets, social media platforms, and outbound calling; grew social media presence by 50%

Thomas Jefferson Library   **Falls Church, VA**
Library Assistant   **August 2017 - May 2020**
- Managed library shelving for hundreds of books, providing customer service and hospitality to visitors
- Brainstormed and designed community events with a 6-person student board to encourage youth literacy and engagement