Xavier Garay

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Work Experience

L3Harris Technologies — Clifton, NJ
Software Engineer, Space and Airborne Systems — Jun 2023 - Present

- Contributed to the development of a cloud-hosted data visualization platform using **Python**, with **Dash** and **Flask** libraries, backed by a **Cassandra** database and deployed on **AWS**, enabling secure and scalable access to mission-critical insights.
- Developed Windows desktop GUI applications in **C++** using MFC for native interface design and event-driven architecture
- Spearheaded and managed a project within an **Agile** environment from initial conceptualization through development to successful internal release and delivery, achieving an **80%** reduction in completion time
- Managed the project's **SQL database** and implemented new features on the user interface, thereby enhancing the overall user experience and a **30%** increase functionality of the project

NJ Army National Guard — Ft Dix, NJ
Cyber Warfare Officer, 17A — May 2023 - Present

- Established **DevOps** plans and tools in support of cybersecurity operations in alignment with a structured strategy to target adversary activities and capabilities
- Designed and developed software for **embedded systems** tailored for small-unit level deployment in tactical environments, enhancing operational efficiency and reliability
- Managed and maintained an **Active Directory** environment, including user/group administration, policy enforcement, and security configurations, ensuring seamless authentication and access control

MIT Lincoln Laboratory — Lexington, MA
Mechanical Engineering Intern — Jul 2022 - Aug 2022

- Tested material properties of silica waveguides as part of the structural and thermal fluids group
- Developed various software solutions to streamline data analysis processes and solve simulation problems, reducing data processing time by **35%**

Education

M.S. Electrical Engineering — Newark, NJ
New Jersey Institute of Technology; In-Progress — Jan 2025 - May 2026

M.S. Computer Science — Newark, NJ
New Jersey Institute of Technology — Sep 2023 - Dec 2024

B.S. Mechanical Engineering — New Brunswick, NJ
Rutgers University; Minors in Military Science and Mathematics; Summa Cum Laude — Jan 2020 - May 2023

Certifications

GIAC Certified Forensic Specialist (GCFA)
Demonstrated expertise in advanced digital forensics, incident response, and threat hunting, with proficiency in analyzing file systems, memory, and network artifacts to detect and mitigate cyber threats

GIAC Certified Windows Security Administrator (GCWN)
Developed advanced skills in securing Microsoft Windows environments through strategic PKI management, Group Policy, and PowerShell security

GIAC Reverse Engineering Malware Certification (GREM)
Expertise in malware analysis and reverse engineering to safeguard IT infrastructure against sophisticated cyber threats

Certified Associate in Project Management (CAPM)
Skilled in assessing and fortifying enterprise security postures, and adept at managing hybrid (Agile and/or Waterfall) environments including cloud, mobile, and IoT

CompTIA Network+
Adept at deploying, managing, and troubleshooting networks across various platforms, ensuring robust connectivity and cybersecurity

CompTIA Security+

Skilled in assessing and fortifying enterprise security postures, and adept at managing hybrid environments including cloud, mobile, and IoT

Projects

Portfolio Website and Resume Builder
NextJS, Rust

- Developed a program in Rust and Next.js which uses JSON files to update both my resume and this portfolio website!
- Everything takes a modular approach, ensuring consistency across all endpoints and makes it possible to update information with ease.

Autonomous Water Collection Drone
Python, Computer Vision

- Developed computer vision landing algorithm for an autonomous drone capable of collecting water and returning to a ground station as part of a senior mechanical engineering project.
- Won "Best Mechanical Engineering Project" award for the class of 2023.

3D Printer Filament Splicer
C/C++, Embedded Systems

- Led a team of high school students alongside a colleague to develop a tool that combines two different spools of 3D printer filament as part of the NJ Governor's STEM Scholars program

Age Prediction Model
Machine Learning, Python

- As part of a final project for a course at NJIT, my team worked together to train several machine learning models with the task of age prediction. The motivations behind this was to see if there were factors that may contribute more towards aging than others, and perhaps we could counter these factors with future research.

Anomalous Activity Detection
Python, Windows PowerShell, Machine Learning

- The majority of the job of threat detection is identifying odd behavior. This project was meant as another means of analyzing data and flagging suspicious activity for review by the operator.

Home Lab
Linux, Docker, Windows PowerShell

- Maintain Docker services within virtual machines hosted on Proxmox
- Several, smaller projects built with Raspberry Pi (e.g., moisture/temperature sensor, EMS direction finder)
- Provides a platform for learning, experimentation, and testing new projects

Multiplayer Survival Game
C/C++

- A multiplayer survival game that takes inspiration from mythology and civilizations from different time periods. This game aims to allow the user more control over their journey with multiple paths they can take which affect the world around them.
- This is a work in progress, with the main intent being to learn the technology. If the game gets advanced enough to be released, that would be an added benefit.