Camden Harris

425-572-2326 camdenharris@gmail.com linkedin.com/in/camden-harris/ github.com/Cjh4444

Education

University of Washington Expected June 2028

Bachelor of Science in Computer Science (GPA: 3.77 / 4.00) *Seattle, Washington*

Relevant Coursework: Systems Programming (C), Data Structures and Algorithms (Java/C++), Intro to Data Science (Python), Hardware/Software Interface (C/Assembly), Software Design and Implementation (Design/Theory), Introduction to Quantum Computation (Theory/Python), Foundations of Computer Science 1&2 (Discrete Math)

Experience

Lead Developer - MITRE Embedded CTF Team September 2024 – Present

Batman's Kitchen - UW Cybersecurity Club *Seattle, Washington*

- Coordinated programming division of UW's eCTF team of >10 members
- Designed cybersecurity curriculum related to cryptography, low level programming, and binary exploitation and provided mentorship for new students
- Wrote security-critical embedded software implementing cryptographic protocols and defenses against common hardware attacks
- Built cybersecurity skills in secure programming, binary exploitation, web security, and reverse engineering through weekly workshops and CTFs

Discovery Intern July 2024 – Aug 2024

Microsoft *Redmond, Washington*

- Designed and implemented new web pages for ONNXRuntime website (250k monthly visits) using Svelte.JS, DaisyUI, and TailwindCSS to create responsive, scalable, and accessible pages.
- Collaborated with stakeholders throughout the development lifecycle to ensure a satisfactory final product.
- Built professional skills by networking with employees across teams via workshops, coffee chats, and meetings.

Team Captain & Lead Programmer May 2021 – June 2024

FIRST Tech Challenge Robotics - Hazen Scarabs | FTC 8693 *Renton, Washington*

- Led 15 students in annual robotics challenges, ensuring design, programming, and outreach deadlines were met, and implemented organizational standards through design and code reviews.
- Started 12 LEGO League and FTC teams for 200+ underserved students, personally mentoring 4 teams.
- Raised $75,000 by engaging local businesses and advocated to WA legislators to expand CTE funding.
- Qualified for WA State Championships 3x, winning control, design, and innovation awards.

Projects

Embedded Satellite System | *C, Python*

- Worked with a group of cybersecurity students to design a satellite encoding and decoding operation on an embedded system
- Designed a tree-based key system to decode an n-sized decoding range with a logarithmic number of keys
- Followed secure programming principles to prevent attacks and used those same principles to exploit others designs

Autonomous Path Follower | *Java, Python*

- Reworked an existing localizer library to better suit my needs and improve tracking accuracy on a different drivetrain
- Designed a path following system using cubic spline curves for precise robot control, speeding up autonomous route development by 30% and boosting scoring by 20%.

Other Projects : Enigma Machine Simulation (Java), Small Business Network (Cisco), LED Matrix Cloud Display (C)

Technical Skills

Languages: Python, Java, C, Learning C++ & Rust
Technologies: Pandas, OpenCV, Tensorflow, Selenium, JavaFX, Ghidra, GDB, Docker, Burp Suite, Wireshark
Concepts: Virtual Memory, Cache Memory, Encryption, Decryption, Defensive Programming, Embedded System Design

Awards & Honors

Spokane Cyber Cup CTF 1st Place, National Cyber Scholarship Finalist (2x), UW FearLess Tech More 2021 Winner, FTC Dean's List State Semifinalist (2x), 2nd Computer Applications (MS Office) @ WA FBLA States; 3rd Computer Problem Solving & 2nd Cybersecurity @ West FBLA Regionals