Maxwell McGee

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Education

The Ohio State University – Columbus, Oh — August ‘23 - *Present*
Computer Science and Engineering BS — Graduating May 2027

Experience

OSU Moritz College of Law – Columbus, Oh — September ‘24 - *Present*
IT/AV Technician

- Assists professors with setting up AV equipment and recording systems for lectures and presentations
- Manages and coordinates technical setup for large events of 70+ participants
- Provide timely IT support to teachers, faculty and students, troubleshooting technical issues

OSU Libraries – Columbus, Oh — August ‘23 - May ‘24
Security Officer

- Monitored library capacity to maintain fire code
- Provide information services to library patrons

Worthington Industries – Worthington, Oh — February ‘23 - August ‘23
Design Engineer Intern

- Created 100+ product models in Solidworks and drawings to meet company's new CAD standards
- Met with plant managers to facilitate product approval process
- Converted and digitized over 1,000 legacy product drawings with autoCAD and Solidworks

See3d – Columbus, Oh — August ‘22 - December ‘22
Web Development Intern

- Implemented an embedded donation system with PUG
- Programmed a Python web-scraper to transfer 150+ Thingiverse model details to a Shopify page
- Made UX improvements the website homepage with JS, CSS and PUG
- Created a more accessible user experience using tools like Funkify, Lighthouse, etc.

Activities

Embedded Security Club — January ‘24 - *Present*
Co-Founder, Treasurer and Web-Master

- Manages club funds, coordinates fundraising and organizes purchases
- Teaches bi-weekly cyber security lessons (ex: serial communication, hashing, component validation)
- Recruited new members to double roster size in the first year
- Created clubs webpage at **osuembeddedsecurity.club** using GitPages and Bootstrap

Projects

MakeOHI/O X — March ‘24
Tracking Security Camera

- Created a python application using openCV that tracks a user's face and sends serial communication
- Programmed an Arduino with C++ to use serial inputs to control a motor’s rotation
- Trained openCV facial recognition model so that only unknown faces would be tracked
- Created a website that began recording when an unknown person was in frame for more than a minute

Mitre eCTF ‘24 — January ‘24 - April ‘24
Microcontroller Supply Chain Security

- Competed with a team in Mitre’s embedded CTF for the first time at OSU
- Ensured security of data on device during build process and deployment using AES encryption in wolfSSL
- Kept passwords and tokens confidential during deployment using SHA 256 hashing in python and wolfSSL
- Performed offensive attacks on other designs using memory dumping, MITM attacks, code injection, etc

Awards

Trustees Scholarship

Skills

Languages: C, C++, Python, Java, JS, HTML, CSS, PUG
Libraries: openCV, wolfSSL, openSSL, pyCryptodome, Selenium, YOLO, Bootstrap
Computer Aided Design: Solidworks, AutoCAD, Onshape, TinkerCad, Cura