Samuel L. Lothrop

| linkedin.com/in/samuel-lothrop-b1a7b71a8 | Ph: (952)-258-3893 | Email: SLlothrop@gmail.com |

EDUCATION

Miami University Oxford, OH

B.S in Computer Science | GPA: 3.31
Club/Activities: Miami Cybersecurity Club, Co-ed Volleyball, Co-ed Broomball, Miami Water Ski Team

M.S in Computer Science
Club/Activities: Miami Cybersecurity Club, Co-ed Volleyball

EXPERIENCE

Miami CTF Oxford, OH

Developer/Tester

- Study and apply the inner workings of cyber security subsections into CTF (capture the flag) challenges
- Efficiently document and report findings/challenges within git lab along with an ubuntu server
- Taught incoming college students the fundamentals and importance of cybersecurity through presentations and application demonstrations
- Represented the schools Cybersecurity club, hosting a school wide CTF event

Shelf Inc. Oxford, OH

Software Engineer/Project Manager

- Worked within a team to design and produce a library catalog using an agile development plan
- Managed primary communication between team and customer
- Organized times/tasks and designed diagrams for front-end and back-end development
- Built the front-end design of the library catalog along with the database structure

PROJECTS

Human Benchmark Cheat Bot | *Python, Selenium, OCR* September 2024 - Present

- Developed web automation system using Python, Selenium, and OCR for data extraction and entry
- Implemented image preprocessing algorithms to enhance OCR accuracy for numerical recognition
- Integrated web scraping capabilities for interacting with dynamic web pages and automating data re-entry

Brain Tumor Detection January 2024 – February 2024

- Built CNN-based program in Python for brain tumor detection/classification from MRI scans
- Implemented data preprocessing pipelines for MRI image data, augmentation, and tensor conversion
- Designed, trained, optimized CNN architecture for accurate brain tumor type classification

Optical Network Simulation March 2023 – May 2023

- Built Python simulation for optical network performance modeling with varying wavelengths.
- Implemented wavelength allocation, packet tracking, and resource update algorithms.
- Analyzed simulation data to visualize wavelength vs. connection blocking probability.

TECHNICAL SKILLS

Languages: Java, HTML, CSS, JavaScript, MySQL, NoSQL, SAS, Python, R, C++, PHP, AJAX
Frameworks: React, Flask, TensorFlow, PyTorch, Scikit-learn, Unity
Developer Tools: Gitlab, Docker, MySQL Workbench, Jupyter Notebook, VS Code, R Studio, Google Colab
Libraries: pandas, torch, NumPy, Matplotlib