

Tyler McGuire

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Statement of Purpose

I am seeking software engineering, cybersecurity, or similar internship opportunities.

Professional Experience

Research Assistant

College of Charleston, Charleston, SC

March 2024–present

Developed an automated system to detect Python software supply chain vulnerabilities using LLMs and static analysis, built with Dash-Cytoscape, LangChain, Ollama, and Bandit. In summer 2024, I analyzed malicious code and developed a malicious Python package detection model using Sci-kit Learn and Random Forrest classifiers.

Student A/V Technician

College of Charleston, Charleston, SC

March 2024–present

Cooperates with multiple departments to assist faculty in resolving technical issues with a focus on audio/visual systems and computer systems.

Education

College of Charleston Honors, Charleston, SC

Expected Spring 2027 (GPA: 3.84)

B.S. Computer Science

B.S. Software Engineering

Minors in Data Science, Spanish

Research

AISAI: Automated Identification of Software Supply Chain Vulnerability

Awaiting acceptance

Developed a vulnerability detection and analysis tool utilizing static analysis and LLMs; benchmarked LLM effectiveness in identifying Python vulnerabilities.

Skills

- Python
- Java
- JavaScript
- HTML/CSS
- git
- bash
- Linux
- Docker
- Go
- MIPS
- SQL
- LaTeX

Extracurricular

Cybersecurity Club

College of Charleston, Charleston, SC

August 2023–present

Competed in scenario-based competitions such as SECCDC and PCDC, as well as contributing to demos and lessons. Defense team member, former treasurer, current president (April 2025–present).

International Collegiate Programming Competition

College of Charleston, Charleston, SC

November 2025

Worked collaboratively to successfully solve complex programming challenges within a 5-hour timeframe. Placed 2nd.