

# Kavanaugh Frank

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## EDUCATION

**Ohio University, Russ College of Engineering and Technology** | Athens, Ohio

Expected Graduation: May 2026

Bachelor of Science in Computer Science

GPA: 3.9

Certificate in Business Cybersecurity Management

## RELEVANT EXPERIENCE

**Ohio Space Grant Consortium (OSGC) STEM Research Scholarship**

June 2024 – Present

- Propose and develop a research project to acquire Digital Elevation Models (DEMs) from the United States Geological Survey (USGS) and integrate them with the Ohio University Glideslope Model (OUGS).
- Engineered a Docker-based microservice architecture to automate the collection of the DEMs using a python web-scraper and a Flask-based API that formats and serves elevation data based on inputted geographic coordinates.
- Implement a Java Swing menu to facilitate API data requests for the OUGS system, enabling the automatic input of elevation data into the system for enhanced accuracy in flight path calculations.

**Ohio University Athens, Avionics Engineering Center** | Athens, Ohio

January 2023 – Present

*Research Assistant*

- Developed a comprehensive user manual for the Ohio University Glideslope Model (OUGS) program with a team of undergraduate students and multiple professors using the LaTeX document preparation system.
- Conduct regression testing on the Java version of OUGS, comparing its functionality and performance against the VB6 version of OUGS.

**Ohio Department of Transportation District 6, Testing Lab** | Delaware, Ohio

May 2024 – August 2024

*Engineering/IT Intern*

- Assisted in the daily use and onboarding of new engineers to AASHTOWare Project, a construction management software introduced statewide at the beginning of the year.
- Constructed SQL queries for the ODOT material and project databases and integrated them into Excel for dynamic data loading enabling engineers to efficiently finalize construction projects.

## LEADERSHIP AND INVOLVEMENT

**Robe Leadership Institute Seminar** | Athens, Ohio

August 2024 – Present

*RLI Scholar*

- Participate in the Robe Leadership Institute, developing leadership skills by studying leadership principles, collaborating on projects, reflecting on experiences, and networking with leaders and peers.

**Ohio University Athens, Russ College of Engineering and Technology** | Athens, Ohio

April 2023 – Present

*Engineering Ambassador/Activity Coordinator*

- Chair the Prospective Student committee, overseeing recruitment projects and interactions, while managing tour requests and matching prospective students with ambassadors based on their major interests.
- Promote the Russ College of Engineering and Technology to prospective students, parents, corporations, and foundations through tours, showcasing the college's diverse opportunities.

### Ambassador of the Month Website

- Created a custom web application to track ambassador work hours and event attendance from an Excel sheet, automating the calculation of the ambassador of the month award and semester bonuses.
- Containerized the application using Docker and deployed it to Google Cloud Run, ensuring access to all ambassadors.

## TECHNICAL SKILLS

C++ Python-Java-HTML/CSS-JavaScript-React-NodeJS-SQL/GQL-Flask-LaTeX-Unit Testing-APIs-Pandas-MySQL