

## SKILLS

- Programming Languages: C, C++, F', Java, JavaScript, Python
- Development Operations: Ansible, Bash Scripting, Docker, Git, GCC, GDB, Linux, NodeJS, VMWare
- Database Management: MongoDB, SQL
- Cybersecurity: Netcat, Wireshar
- Microsoft Office Suite

## WORK EXPERIENCE

### Auburn University PASER Lab

**January 2024 – May 2024**

*Website Developer*

**Auburn, AL**

- Developed a web-based learning tool to help students learn secure coding practices
- Utilized NodeJS, JavaScript, CSS, MongoDB, and HTML to develop working front and back end functionality

### Harbert College of Business Information Technology Services

**August 2023 – Present**

*Student IT Worker*

**Auburn, AL**

- Assist with system administration for Harbert College of Business
- Troubleshoot software and hardware services for faculty and students

### WEGL 91.1 FM

**August 2021 – May 2024**

*Program Director*

**Auburn, AL**

- Managed and scheuled live programming for WEGL FM radio station
- Trained new members on radio hardware and software
- Streamlined initiation process for new members to allow for quicker onboarding and more efficient training

## EDUCATION

### Auburn University, Auburn, AL

**August 2021 - May 2025**

- Bachelor of Software Engineering | 3.6 GPA
- Certificate of Cyber Defense

## PROJECTS

### Alabama CubeSAT Initiative Satellite Software Generation

*Team Lead*

- Automated flightcraft software generation based on system requirements and stakeholder input to increase operational efficiency for systems engineers
- Implemented hardware and software system requirements as part of Python microservice for F' software generation
- Designed C++ flight craft software using NASA's F' software

### Small Satellite Program CubeSAT

*Embedded Systems Engineer*

- Designed PCB to interface with satellite components
- Conducted research to choose satellite hardware based on system requirements for ASTRA ETHEREA's Attitude Determination and Control System

### Intro to Cloud Computing

*Group Member*

- Collaborated with a group of six to deploy a functional OpenStack deployment for cloud computing use
- Orchestrated server configuration using Ansible and Bash Scripting to create a server network
- Managed OpenStack deployment to allow for public cloud access

## **Operating Systems**

### *Student*

- Built control functions inside OS/161 kernel with the C Programming Language to develop a working Operating System
- Debugged software implementation to ensure error free kernel operations

## **Digital Forensics**

### *Student*

- Performed network traffic and packet level analysis with Wireshark to identify user activities and transmitted files
- Analyzed hard drive content to extract deleted and hidden files

## **Cyber Threats and Countermeasures Penetration Testing**

### *Student*

- Identified security vulnerabilities in target network by analyzing host/network communication
- Penetrated target network and escalated privileges by utilizing CVEs and exploiting poor application security
- Compiled effective recommendations to prevent future exploits and secure network services

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## **Alabama CubeSAT Initiative Satellite Software Generation**

### *Team Lead*

- Automated flightcraft software generation based on system requirements and stakeholder input to increase operational efficiency for systems engineers
- Defined a set of Controlled Natural Language system requirements relevant to software engineering and flight craft development
- Implemented hardware and software system requirements as part of Python microservice for F' software generation
- Designed C++ flight craft software using NASA's F' software

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