

# Madeleine McBride

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## Education

**University of South Carolina Honors College (UofSC) Columbia, SC**

Graduation: May 2026

- B.S. Computer Information Systems
- GPA: 3.8
- Department of Defense Cyber Service Academy Scholar, Palmetto Fellows Scholar, Viceroy DECREE Scholar
- Extracurriculars: Women in Computing (President), Gamecock Battalion Cyber Club (Treasurer), Women's Ultimate Frisbee, Ink Writing Club

## Technical Skills

**Programming:** Java, Python, HTML, CSS, C++

**Networking and Security:** Docker, Kubernetes, GAN, PuTTY, Protégé, Wireshark, Aruba, Cisco, Juniper

**IT Support and Software:** Service Now, Git, Excel, Linux, Microsoft Suite

## Work Experience

**Research Assistant – USC College of Engineering and Computing**

Sept. 2024 – Present

- Developed a Python-based simulation to inject IP spoofing attacks and dynamically adjust trust scores in large-scale authentication datasets, enhancing realism in adversarial testing.
- Engineered preprocessing pipeline using pandas and scikit-learn with label flipping, numeric noise injection, and trust score overlap to prevent SVM overfitting (AUC: 0.82–0.91).
- Designed CLI-controlled quick/full execution modes and visualized ROC performance to accelerate model evaluation and support robust binary classification.

**Network Operator – USC Division of IT**

Dec. 2023 – Present

- Configure and deploy Cisco and Aruba access points, Juniper switches, and routers via CLI-based management in PuTTY, optimizing network performance, coverage, and security.
- Perform switch configuration, VLAN setup, and port security adjustments to support enterprise network segmentation and policy enforcement.
- Conduct physical installation, cabling, and testing of access points and switches, verifying signal integrity and proper configuration before deployment.

**Cybersecurity Youth Instructor – Trident Technical College**

Summer 2024

- Delivered instruction on core cybersecurity principles, including ethical hacking techniques, network security protocols, and encryption methods, to elementary and middle school students.
- Designed and led hands-on labs simulating real-world security scenarios, integrating critical thinking challenges with practical use of cybersecurity tools.

**IT Service Technician – USC Division of IT**

Dec. 2022 – Dec. 2023

- Provided Tier-1 and Tier-2 IT support in-person and remotely, resolving hardware/software issues efficiently using Service Now.
- Resolved 300+ IT tickets for university faculty, staff, and students, ensuring optimal system performance.
- Collaborated with cybersecurity and networking teams to address security concerns and implement best practices.