

Harshith Motipalli

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EDUCATION

George Mason University, Fairfax, VA

December 2027

- Bachelor of Science in Cybersecurity Engineering, Minor in Information Technology
- Relevant Coursework: Digital Electronics, Computing Digital Systems Engineering, Intro to Cybersecurity Engineering, Intro Computer Programming, Linear Algebra, Discrete Mathematics I, Analytic Geometry & Calculus III, Operating Systems, Computer Programming for Engineers, Object Oriented Modeling and Design

EXPERIENCE

Undergraduate Research Assistant, George Mason University

Sept 2025

- **Engineering autonomous ground vehicle software** utilizing **large language models** for intelligent grid layout planning and seamless integration of flight data
- **Developing advanced navigation and precision marking algorithms** with **sensor fusion and embedded programming**, consistently achieving positional accuracy across challenging terrains.
- **Collaborating** cross functionally to **prototype, test, refine autonomous systems**, enabling scalable, **reliable deployment** in dynamic field environments for **live drone events**

Software Development Internship, South Asian Business Council of Virginia

June 2025 - Aug 2025

- **Collaborated** in an **agile development** environment to design, develop, and deploy Android applications from concept to production release.
- **Developed** intuitive, frontend user interfaces using **Kotlin, Python, and modern Android development tools** and frameworks.

Lead Cloud Engineer, George Mason University HACKFAX

Oct 2024 - April 2025

- **Automated deployment pipelines and network observability tools** using **Microsoft Azure**, integrated with **IAM, NSGs, and telemetry pipelines**.
- Developed **Infrastructure-as-Code (IaC)** scripts and documented secure, **multi-tier network topologies** for repeatable use.
- Incorporated **security architecture principles** into network design, applying **cryptographic methods** and **IAM** security practices.

Lead Network Engineer, George Mason University HACKFAX

Nov 2023 - March 2024

- **Engineered and deployed network environments** using **Cisco Packet Tracer and IOS CLI**, including network probes and endpoint configurations.
- Performed **penetration testing and simulated attacks** to validate incident response workflows, integrating results into **cybersecurity playbooks**.

PROJECTS

American Sign Language to Text Translator:

- **Developed a machine learning model** using **Python, TensorFlow, and Node.js**, demonstrating high accuracy in **real-time ASL translation** from a webcam through continuous model improvements.
- Implemented **advanced image preprocessing** and optimized training data to minimize classification errors.

Accessibility Mapping Web App:

- Designed and deployed a **crowdsourced accessibility mapping application** using **React, TypeScript, and Google Maps API**, enabling **users to mark locations for accessibility features**.
- Developed and deployed a **real-time tagging system**, fostering increased user engagement and significantly enhancing data accuracy for accessibility mapping.
- **Optimized application performance, reducing API call latency** and improving state management.

SKILLS

- **Certifications:** Cisco Certified Networking Associate (CCNA), CompTIA Network+, CompTIA Security+, AWS Cloud Practitioner, AWS AI Practitioner, CompTIA A+, CompTIA CSIS, CompTIA CIOS
- **Computer:** Python, Java, C++, Go, C#, Perl, PowerShell, SQL, HTML5, CSS, JavaScript, React, PHP, Packet Tracer, Linux (Ubuntu & Kali), Windows (Home/Server/8/10/11), macOS, TCP/IP, DHCP/DNS, VLAN, VPN, OSPF, IPSEC, ACLs, SNMP, SMTP, Azure, Git, Data Visualization, Netflow, Splunk, Wireshark, Grafana
- **Security & Systems:** Network Security, Cryptography (AES, RSA, PKI), Security Architecture, Threat Modeling, Incident Response, IoT Security, Artificial Intelligence, Machine Learning, Deep Learning, Neural Networks, Edge AI
- **General:** Communication, Leadership, Teamwork, Problem solving, Critical thinking, Management, Organization, Networking