KUMOULICA ALLU

Phone: +1 (940) 364-9166 | Email: uhkallu@gmail.com | LinkedIn:linkedin.com/in/allukumoulica

EDUCATION

Masters in Cybersecurity May 2026
University of Houston, Houston, Texas, USA - 4.0 GPA
Coursework: Principles of Cybersecurity, Secure Enterprise Computing, Advance Soc, Applied Cryptography, Cybersecurity Risk Management, Network Security, Critical Thinking in Cybersecurity, Project Management Principles

Bachelor of Technology in Computer Science and Engineering (Cyber Security) May 2024
Amrita Vishwa Vidyapeetham, Chennai India – 7.74 GPA
Coursework: Secure Software Engineering, Web App Security, Network Security, Forensics, Ethical Hacking, Applied Cryptography, VAPT, Android App Development, AI, IOT, Compiler Design
Publication: Author, "A Construction of Smart Grid Authentication and Key Agreement System Using ECC Cryptography" published in the Institute of Electrical and Electronics Engineers

TECHNICAL SKILLS

- **Security Tools:** Nmap, Nessus, Burp Suite, OWASP ZAP, Splunk, Kibana, Snort, Wireshark, Suricata, Metasploit, IDS/IPS, SIEM, EDR (CrowdStrike, OSQuery), Threat Intelligence, Vulnerability Management (Qualys/OpenVAS), Penetration Testing, Incident Response, Digital Forensics (Autopsy, FTK Imager), MITRE ATT&CK, Malware Analysis & Reverse Engineering, Detection Engineering, Security Countermeasures
- **Programming & Scripting**: Python, SQL, C, PowerShell, Bash, Linux Shell
- **Cloud Platforms:** AWS (EC2, S3, Lambda, DynamoDB), Terraform
- **Other:** Active Directory, IAM/Okta, Cryptography, Secure APIs, Vulnerability Management (Qualys/OpenVAS), Threat Hunting, Digital Forensics & Incident Response (Autopsy, FTK Imager), Risk & Compliance (NIST, ISO 27001, HIPAA, PCI-DSS), Secure System Design GitHub, Linux/Kali

WORK EXPERIENCE

Research Intern –CYBER-CARE, University of Houston Aug 2025 - Present
- Conducting research on transportation cybersecurity with focus on Advanced Traffic Management Systems and connected vehicle security.
- Assisting in data analysis, protocol evaluation, and development of decentralized security frameworks.

Optim IT, Security Analyst Dec 2023 - May 2024
- Designed and secured enterprise APIs using MuleSoft's Anypoint Platform, ensuring compliance with organizational security policies.
- Implemented OAuth2.0, TLS, and RBAC across 15+ APIs, reducing potential attack surface by 30%.
- Assisted in risk identification and mitigation, enabling secure integrations across business systems.

Indian Institute of Technology, Research Intern, Tirupathi, India Jun 2023 – Aug 2023
- Researched steganography and steganalysis techniques leveraging deep learning to enhance data confidentiality.
- Conducted image processing (noising, denoising) on MNIST dataset, strengthening skills in data analysis and ML-driven security.
- Utilized Blender for 3D image modelling and applied data augmentation strategies for secure imaging applications.

ACADEMIC PROJECTS

Network Intrusion Detection using LIME Apr 2025
Designed and implemented a machine learning–based IDS using Random Forest and Neural Networks for real-time attack detection. Integrated LIME to provide model explainability and deployed the solution via Flask with an interactive security dashboard for live monitoring.

INSTAGUARD: Adaboost-Based Fake Instagram Profile Detection Mar 2024
Developed *INSTAGUARD*, an Adaboost-based ML system integrated with a REST API to identify fraudulent Instagram profiles. Enhanced detection accuracy, minimized false positives, and improved overall platform security through optimized model performance.

LEADERSHIP & INVOLVEMENT

Skill Enhancement Coordinator Oct 2023 – Sep 2024
- Organized and led peer workshops on SIEM tools, incident response, and cloud security.
- Coordinated skill-building events for 50+ students, increasing career-readiness and technical engagement.

CERTIFICATIONS

Google Cybersecurity Professional, CompTIA Security+ (Expected: Nov 2025), AWS Certified Cloud Practitioner, MuleSoft Developer 1, Introduction to Cybersecurity (Cisco)