JEYTHA SAHANA VENKATESH BABU
Security Engineer
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CORE COMPETENCIES

Machine Learning | SDLC | OS & Network Protocols | Incident Response | Threat Intelligence | Vulnerability Assessment | Risk & Compliance |Cryptography | Ethical Hacking |Endpoint Security | Cloud Security & Virtualization | Control Systems |Intrusion Detection/Prevention |Ethical Hacking |Honeypots

EDUCATION

PACE UNIVERSITY (Scholarship) — New York, NY
MASTER OF SCIENCE (MS) IN CYBERSECURITY | **GPA: 3.9/4.0** — May 2026
ANNA UNIVERSITY - MADRAS INSTITUTE OF TECHNOLOGY — Chennai, India
BACHELOR OF ENGINEERING IN COMPUTER SCIENCE |**GPA: 7.8/10** — May 2023

SKILLS

Software: C++ | RStudio | Python |PowerShell | Bash | MS Office 365
Operating Systems: Windows | Ubuntu | Kali | Chrome OS | Mac OS
Cybersecurity Tools: Firewall | SIEM (Splunk) | IDS/IPS | Honeypot (Cowrie) | Encryption |Nessus | Nmap | Metasploit | Wireshark |OWASP ZAP | Snort | Tcpdump | Apache | Docker
Network Protocols: TCP/IP/UDP | WLAN LAN | FTP/SMTP/ | SSH | Telnet |HTTP/HTTPS | DNS
ICS Protocols: Modbus | Profibus | Ethernet | HART| SCADA | DNP3
Frameworks: ISO27001/IEC27002/IEC62443 | NIST-800/NIST-CSF | CIS Controls | CIA | PCI | DSS | GDPR | MITRE ATT&CK | STRIDE Analysis |NERC CIP |IEC | Purdue Model
Certifications: **CISA** - Industrial Control System Cybersecurity (300) Training **(1.4 CEUs)** | ICS 100 - Introduction to Incident Command Systems - **FEMA IS-100.c** (2024) | Cybersecurity Professional Certification – Google (2024)

PROFESSIONAL EXPERIENCE

Google — New York, NY
Security Consultant Intern — May 2025 – Present

Project 1: ICS/OT Cybersecurity Consulting & Expansion

- Architected and led content development for advanced **ICS/OT cybersecurity**, expanding global consulting services across GRC, **secure cloud integration (NERC CIP), and modern SecOps (threat detection, incident response, SOC integration)**. Gained expertise in **SCADA, HMI, PLC systems, industrial protocols (Modbus, DNP3, EtherNet/IP, Profinet, OPC), and the Purdue Model.**
- Conducted hands-on **ICS/OT Healthcheck assessments, analyzing firewall rules & ACLs** to identify vulnerabilities and provide actionable recommendations for enhanced client **perimeter security and operational resilience**.
- Contributed to white papers on secure **OT cloud adoption (Google Cloud) and Zero Trust architectures** for industrial transformation.

Project 2: Automated Cybersecurity Assessment & Reporting Platform

- Key initiation team member for a **Python/Tkinter GUI** platform automating cybersecurity assessments via **PowerShell/Bash/Mandiant C2C and JSON processing**.
- **Centralized findings and automated historical data curation**, significantly improving team efficiency and consistency in vulnerability management.

Amazon — Chennai, India
Machine Learning Data Associate — May 2023 – Jan 2024

- Conducted **Exploratory Data Analysis, improving operational data integrity by 90% and efficiency by 10%** through collaboration on large datasets.
  Ensured compliance with **SPDI, GDPR, CCPA, and DPDPA** while enhancing data accuracy using new extraction methods for classified datasets.

ACADEMIC PROJECTS

OT Pentest Simulation — July 2025

- Performed an **OT penetration test simulation** on a virtual **HVAC system**, utilizing **Nmap and Modbus** polling tools to **exploit vulnerabilities** and manipulate **industrial processes.**

Replication and Analysis of the Mitnick Attack: TCP Session Hijacking in a Controlled Environment March 2025

- Executed a case study **replicating the Mitnick Attack, a TCP session hijacking technique, in a restricted lab environment. Analyzed SYN flooding, TCP sequence number prediction**, and spoofing-based backdoor implantation, providing security recommendations to mitigate similar network vulnerabilities.

Penetration Testing a Vulnerable Web Application Using OWASP Juice Shop March 2025

- Set up and tested **OWASP Juice Shop** on **SEED UBUNTU** using **Docker**, i**dentified vulnerabilities**, and confirmed **open port 3000 via Nmap** with 100% successful deployment and scan.

Network security and Defense for a conceptualized company Apr 2025

- Designed and implemented a **segmented network** architecture for an e-commerce company with DMZ and internal zones; **deployed Apache server, configured firewall rules, and enabled secure VPN access**.
  Integrated Snort and Splunk for intrusion detection and centralized SIEM-based monitoring across the network.

Network Scanner Project Dec 2024

- Developed a **Python-based network scanner with Tkinter GUI, detecting 100+ open port**s, identifying services, and **improving scan time by 30%** through optimization and responsive UI.

Cybersecurity Advisory Project Dec 2024

- Advised cybersecurity strategies for a conceptualized global e-commerce firm on federal compliance, and international expansion. Delivered recommendations, Evaluated **NIST CSF 2.0, ISO 27001, PCI DSS; designed IAM lifecycle, entitlement review, MFA, SSO, adaptive auth**; implemented **Zero Trust (least privilege, continuous verification, segmentation); defined RBAC for cloud security.**

EXPERIENTIAL LEARNING

VoteTech: Revolutionizing Democracy – Modernizing Voting with TCS (3rd place) December 2024

- Designed a **Secure Digital Voting System** with **data protection, UI security (screen inactivity timeout), and a demilitarised zone**, presenting it to **TCS Cloud Architects & AI Directors**.