

## RAMYA ARUMUGAM

US | 312-731-2368 | a.ramya0507@gmail.com | www.linkedin.com/in/arumugam-ramya

### SUMMARY

Cybersecurity professional with hands-on experience in incident response, penetration testing, IAM, and system security. Skilled in threat detection, vulnerability assessment, and secure system design using tools such as Splunk, Wireshark, and Nessus. Proven track record in developing SOC processes, authoring risk management documentation, and implementing NIST 800-53 controls. Experienced across cloud (AWS, Azure), encryption, and secure communications, with strong programming skills in Python, Shell, and C++. Strong knowledge of networking (TCP/IP, DNS, DHCP, VPNs, firewalls).

### EDUCATION

**Master of Cybersecurity**, Illinois Institute of Technology, Chicago, IL MAY 2025  
**Specialization:** Ethical Hacking and Penetration Testing | System and Network Security | Information Security | Data Privacy and Security | Artificial Intelligence | Cryptography  
**Bachelor of Information Technology**, Coimbatore Institute of Technology (CIT) JUN 2021

### CERTIFICATIONS

- **GCIH:** GIAC Certified Incident Handler Certification IN PROGRESS
- **GSEC:** GIAC Security Essentials Certification, SANS Institute AUG 2025
- **GFACT:** GIAC Foundational Cybersecurity Technologies, SANS Institute MAR 2025
- **CompTIA Security +** MAR 2025
- **AIS247:** AI Security Essentials for Business Leaders, SANS Institute FEB 2025
- **Certified in Cybersecurity**, ISC2 JUL 2024
- **Microsoft Azure:** Identity and Access Management JUL 2024

### WORK EXPERIENCE

**Lead Cybersecurity Analyst** MAY 2025 - Present  
Lumena Energy

- Translating **NIST SP 800-53** controls into system-level requirements and implementing them.
- Leading the design and implementation of the company's first Security Operations Centre (SOC), including charter, structure, incident response playbooks, and monitoring workflows for the containerized AI data center nodes.
- Contributing to system docs: SRD, SRS, SAD, STAR and Risk Management Plan while utilizing JIRA.

**Cybersecurity Analyst** SEP 2024 – MAY 2025  
EcoCAR EV Challenge

- Simulated and validated secure vehicle messaging using MATLAB/Simulink for system startup and control, applying **DevSecOps** principles to align encryption and authentication processes with **CI/CD** testing.
- Implemented encryption to ensure reliable and tamper-resistant communication between components.
- Collaborated with **cross-functional** teams to optimize message authentication to enhance startup reliability and safety.

**Ethical Hacking Teaching Assistant | System and Network Security** AUG 2024 - MAY 2025  
Illinois Institute of Technology

- Facilitated hands-on labs in ethical hacking, intrusion detection, and access control, guiding students in system hardening, firewall configuration, and log analysis. Demonstrated effective communication and critical thinking.

**Cybersecurity Educator** SEP 2021 - AUG 2023  
BrightChamps Tech Private Limited

- Delivered secure coding, programming, and foundational cybersecurity concepts in **C, C++, Python, and Shell**.
- Mentored diverse learners on real-world projects, emphasizing problem-solving and security best practices.
- Enhanced course quality and documentation, increasing student satisfaction by 25% and completion rates by 15%.

**Software Engineer** AUG 2021 - NOV 2021  
EClouds energy LLP

- Directed software design and development efforts, accelerating system efficiency and scalability.
- Maintained system integrity and scalability, leading to a 15% increase in stability and performance.
- Managed User access and permissions, conducted code reviews and expanded feature delivery efficiency by 25%.

## CYBERSECURITY TRAINING AND FELLOWSHIPS

---

- Hamilton's Solutions, Inc** MAY 2025 - Present
- Collaborating directly with the CEO to develop cybersecurity audit contracts, client-facing security solutions including compliance and risk management, and strategic pitch materials.
- WiCyS Vulnerability Disclosure Program** JUN 2025 - Present
- Identifying, reporting, and triaging real-world vulnerabilities. Gaining practical experience in secure coding practices, systems analysis, and responsible disclosure processes.
- HSOC Cybersecurity Fellowship** APR 2025 - Present
- Supported cyber defense, SOC analysis, and vulnerability assessments in a hands-on remote environment.
- WiCyS Security Training** AUG 2024 - Present
- Advanced through multi-tiered cybersecurity training, including Capture the Flag events, TryHackMe labs, and CyberGen IQ.
- TCS Cybersecurity Analyst Simulation – Forage** JUL 2024
- Completed a virtual IAM-focused job simulation with TCS, emphasizing identity management and security documentation.

## PROJECTS

---

- Web Application Security Assessment and Remediation, Illinois Tech** NOV 2023 - DEC 2023
- Uncovered and mitigated SQL injection vulnerabilities, fortifying authentication and data protection.
  - Employed prepared statements to reinforce security measures and improve application resiliency.
- Intrusion Detection System using Machine Learning, Illinois Tech** OCT 2024 - DEC 2024
- Developed a Hybrid IDS integrating NIDS and HIDS using Machine Learning (ML) for real-time threat detection.
  - Achieved high accuracy and low computational overhead with optimized feature selection and ML models.
  - Enhanced system scalability and robustness for diverse network environments.

## SKILLS

---

- **Security Skills:** Burp Suite | Splunk | Metasploit | Wireshark | Nessus | OpenSSL | Microsoft Azure | Entra ID
- **Hands-on experience:** AWS | Rootkits | Docker | System Hardening | OWASP | PowerShell | SIEM | EDR | VLAN
- **Programming Skills:** Shell Script | Bash | Python | C++ | C | HTML | CSS | SQL | Assembly Language
- **Operating Systems:** Kali Linux | Ubuntu | Windows | Mac OS
- **Compliance frameworks:** NIST | ISO 27001 | CIS

## COMPETITIONS

---

- National Cyber League (NCL) Competitor - Used Splunk to identify a hacker's IP from a log file
- Try Hack Me - Hacker: Developed hands-on experience in defensive security
- CyberTruck Challenge 2024 - Exploited vulnerability in the learning platform connected via ethernet
- CyberForce Competition 2024 - Conducted security assessments, found vulnerabilities in the AWS machines

## WORKSHOPS

---

- Cybersecurity - From An Enterprise Viewpoint, Coimbatore Institute of Technology
- AWS Security JAM, WiCyS 2025 Annual Conference - Hands-on lab in AWS security incident response
- Penetration Testing With Artificial Intelligence [HackingBuddy AI]

## VOLUNTEERING AND COMMUNITY INVOLVEMENT

---

- Active volunteer and member of Information System Security Association (ISSA) Chicago Chapter SINCE 2024
- Global Cyber Security Initiative (GCSI) & Chicago Cybersecurity Conference SINCE 2024