Gurumanie Singh Dhiman

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Work Authorization: F-1 OPT (3 years remaining); eligible for H-1B1 (Singapore, no lottery)

Seeking a full-time role in cybersecurity-focused software development, specializing in networking, infrastructure, and backend, starting Summer 2026. Passionate about designing secure, scalable systems and integrating software with networks and security.

Education

Bachelor of Science, Computer Engineering (CGPA: 3.86/4)   *Expected May 2026*

Iowa State University, Ames, IA

- **Certifications:** CompTIA Security+ (SYO-701) certified, CCNA (In-progress)
- **Hacking and Cybersecurity Club (HACC)**
- **Relevant Coursework:** Network Protocols and Security, Information System Security, Computer and Network Forensics.

Technical Skills

- **Security:** PKI, TLS, IAM, AAA, IDS/IPS, logging/monitoring, incident response
- **Networking:** Switching/Routing, VLAN, OSPF, DHCP/DNS, RF/interference, Wireshark
- **Tooling/Infra:** GitLab CI/CD, Docker, Linux (systemd, journalctl), LibreNMS, OpenStack, Git
- **Web & Backend Development:** Spring Boot, MySQL, H2 Databases, REST APIs
- **Software Development Process:** Agile, Scrum, SDLC, Risk Management
- **Technical Documentation:** Sphinx, reStructuredText (.rst) format
- **Programming:** Java, C, Python, Bash

Experience

Wireless Network Systems Engineer, ARA Wireless Living Lab, Iowa State University   *Jun 2025 – Current*

- Troubleshot system-level failures across a multi-node wireless network across Ames, IA, ensuring stable connectivity for critical user equipment in the field by leveraging journalctl and network diagnostic tools such as LibreNMS.
- Configured and deployed configuration updates to base stations and user equipment using Docker containerization, Systemd orchestration, and flco-cli automation, improving throughput, reliability, and interference mitigation.
- Implemented and optimized GitLab CI/CD pipelines, adjusting .gitlab-ci files and pushing networking scripts to the repository, which reduced deployment errors and improved automation efficiency for network updates.
- Authored technical documentation using Sphinx and reStructuredText, reducing onboarding time for new team members.

Backend Developer, Iowa State University   *Aug 2024 – Dec 2024*

- Built RESTful APIs with Spring Boot for efficient frontend-backend communication.
- Integrated MySQL and H2 databases, optimizing queries to achieve up to 20% faster response times under high load.
- Integrated Hugging Face AI API for inappropriate chat detection to enhance user safety.
- Collaborated in Agile sprints with developers and testers, applying risk assessment and code review practices.

SI Leader for Data Structures and Algorithms, Iowa State University   *Aug 2024 – Dec 2024*

- Led weekly coding sessions for over 80 students, reinforcing data structures and algorithmic concepts covered in lectures.
- Taught debugging, algorithm optimization, and problem-solving to students for enhancing their coding efficiency.
- Facilitated clear technical communication and fostered collaborative learning environments for diverse student groups.

Projects

Secure Wireless Aircraft Data Load, Senior Design Project, Iowa State University   *Aug 2025 – Current*

- Building a prototype environment with Raspberry Pi devkits emulating aircraft functions, focusing on network security.
- Exploring the design of a secure wireless dataload system for aircraft networks, incorporating public key infrastructure (PKI), threat modeling techniques, and encryption to address cybersecurity risks.