

# Ajay Kristipati

+1 (919) 448-7644 | [kristipati.ajay@gmail.com](mailto:kristipati.ajay@gmail.com) | LinkedIn: [ajay-kristipati](#) | GitHub: [kasi-kothimira](#)

## Education

<b>North Carolina State University, Raleigh, NC</b>	<b>08/2021 - 12/2023</b>
Masters in Computer Science	
<b>University of Washington, Seattle, WA</b>	<b>09/2018 - 06/2021</b>
Bachelor of Science in Computer Science, Minor in Mathematics	

## Work Experience

<b>Cisco, Software Engineer</b>	<b>08/2021 - Present</b>
• Developed and integrated features in Cisco products to achieve federal security certifications including <b>FIPS</b> and IPv6 in order to increase public-sector sales revenue by 20%	
• Improved security for Department of Defense applications by implementing <b>Post-Quantum Cryptography</b> in <b>AnyConnect VPN</b> , improving alignment with federal standards	
• Integrated IPv6 support into the Identity <b>Services Engine (ISE)</b> to broaden network protocol capabilities	
• Established a comprehensive testing environment for <b>Linux Kernel</b> Modules across diverse system configurations	
• Streamlined company-wide security efforts by packaging cryptographic utilities across Cisco offerings like <b>Cisco Unified CallManager (CUCM)</b> and <b>Integrated Service Router (ISR)</b> to meet FIPS standards	
• Backported changes to <b>RSA</b> from <b>OpenSSL</b> 3.x to <b>OpenSSL</b> 1.1.x in order to maintain FIPS Compliance	
• Maintained internal versions of <b>OpenSSL</b> and <b>OpenSSH</b> , and Python for use across Cisco products across business units	

## IBM, Full-Stack Development Intern

**06/2019 - 08/2019**

- Member of IBM Product Development team, focusing on Talent Management and Virtual Training systems for global employees.
- Created educational software integrating **Docker** and **RHEL** into training modules, improving in course completion rates by 30%.

## Projects

### 2026 CKC Badge

[github.com/lockfale/cackalackybadgy2026-dev/](https://github.com/lockfale/cackalackybadgy2026-dev/)

- Member of the team that developed the official conference badge for the CKC Security Conference in Raleigh, NC
- Used **C** to write firmware for **ESP32**-based badges, in order to handle WiFi connectivity and communication with the backend servers using **GRPC** and **MQTT**
- Used **Kubernetes** to run backend servers for the event, and protecting system integrity from adversarial attacks

### PGP2OpenSSH

[github.com/kasi-kothimira/pgp2openssh](https://github.com/kasi-kothimira/pgp2openssh)

- A **Rust** Utility to convert **PGP** keys to **OpenSSH** format, enhancing interoperability between encryption systems

### Mirafetch

[github.com/ArgentumCation/mirafetch](https://github.com/ArgentumCation/mirafetch)

- Created a high-performance cross-platform system monitoring tool in **Rust**, achieving an 8000% performance boost over similar tools through optimized multithreading.

### Homelab

- Built a high-availability container and VM infrastructure using **Kubernetes** and **Proxmox**, achieving fault tolerance and efficient resource distribution with reproducible **Nix** configurations
- Implemented a distributed storage system using **Longhorn**, to ensure data redundancy and high availability across multiple nodes

### Music Queuing Application

[github.com/kasi-kothimira/MusiQueue](https://github.com/kasi-kothimira/MusiQueue)

- Developed a Web application to allow groups of people to collaborate on creating playlists at social gatherings
- Created **React**-based frontend, with **Firebase** backend for real-time updates and data storage

## Technical Skills

**Programming Languages:** C, C++ C#, Go, Java, JavaScript, TypeScript, Python, Rust, Swift

**Technologies:** Agile, Bash, Ceph, Docker, Flask, Jenkins, Kubernetes, Linux, Nix, Proxmox, React