RAKSHITH S

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EXPERIENCE

Siemens Healthineers Bangalore, India

Software Engineer 1 *July 2023 – Present*

- **Built high-performance microservices** in **C++**/**Go** interoperating with **Java** services; optimized concurrency and memory to lower latency by **25%**.
- **Implemented resilience patterns** like circuit breakers and retries, ensuring consistent system availability and data integrity under high load.
- **Enhanced multi-tenant data path** with **MySQL** tuning and **Redis** caching; increased throughput by **40%** for large datasets.
- **Applied secure coding principles** and **Design Thinking** to simplify **Linux systems programming** and security protocols, ensuring user privacy and data integrity.
- **Leveraged AI tools like GitHub Copilot** to accelerate development, conduct code reviews, and generate automated test cases for complex security features.
- **Integrated PKI and SSL/TLS certificates** for secure communication between distributed services, identifying and fixing certificate provisioning issues to improve security posture.
- **Optimized system-level I/O** and networking workflows in **UNIX** environments, reducing mean time to resolution (**MTTR**) for production defects via structured debugging.

Siemens Healthineers Bangalore, India

Software Engineer Intern *February 2023 – July 2023*

- Developed **REST APIs** and data models (C#) with **MySQL**/**Redis**; contributed to ingestion/validation modules and unit/integration tests.
- Automated developer workflows and CI tasks; participated in **code**/**design reviews**; achieved **60%** process time savings and **mentored** interns; adhered to **Agile** methodology.

SKILLS

Languages: C, C++, Golang, Python, SQL, Bash, Shell, C#, Java
Security & Networking: TLS, IPsec, MACSec, PKI/Certs, AAA, Network Security, SSL/TLS, Distributed Systems
Core Systems: Linux/Unix Systems Programming, Multithreading, Multiprocessing, High-Availability, RTOS
Optimization: Performance Profiling, Lock-free Data Structures, Async I/O, Memory Management, Debugging
Tools & Practices: GitHub Copilot, Secure Coding, Agile/Scrum, Git, CI/CD, Docker, Kubernetes, AWS/Azure

PROJECTS

High-Performance Systems & Security Engine (Github) | *C++, Linux, Multithreading*

- Engineered a low-latency systems engine in **C++** using **lock-free data structures** and custom memory management; achieved sub-millisecond execution times in **Linux environments**.
- Designed a **multithreaded** architecture for concurrent processing; optimized for scale and reliability, incorporating secure network I/O with resilient retry policies.

Secure Distributed Data & Encryption Utility (Github) | *C++, Secure Coding, AES*

- Built a secure distributed storage utility with **AES-256** encryption and block-level deduplication; applied **secure coding principles** and simplified data transmission logic.
- Integrated **PKI**/**Certs** for secure authentication; optimized byte-level performance and error handling to protect against data corruption and unauthorized access.

AI-Powered Code & Security Analysis Tool (Live | Github) | *AI, ML, Python*

- Created an AI-powered platform to predict technical debt and security risks; used **AI tools like GitHub Copilot** to accelerate feature development and unit test generation.
- Developed pipelines for repository analysis; contributed to **architecture**/**design reviews** and delivered visualizations for code quality and security compliance.

EDUCATION

National Institute of Engineering Mysore, India

B.E in Electronics and Communication Engineering *August 2019 – July 2023*

- Coursework: Computer Networks, Computer Architecture, DBMS, Big Data, Machine Learning, DSA, REST API.
- Language fluency: Kannada, English, Hindi.

CO-CURRICULARS

Xstasis Dance Group:Siemens Healthineers.| **Project Head**:UCSP Research Group, NIE.| **Marketing Head**:Onyx E-Cell, NIE.