

Sirisolla Jaya Surya

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PROFILE

Backend engineer with **4 years** building production distributed systems at scale (Reliance Jio, IPL 2025 live broadcasts) and **AI/agent platforms** (OpenClaw + MCP, on-device LLMs). Go + Kafka + Flink for the data plane; LLM tool-calling, RAG, and verifiable-reward training (GRPO) for the agent layer. Care deeply about latency, reliability, and shipping AI features that hold up in production.

TECHNICAL SKILLS

- **Programming Languages:** Go (Golang), TypeScript, Python, Java.
- **Backend Technologies:** Gin, gRPC, RESTful APIs, Microservices, WebSockets, NodeJs, NestJS.
- **Frontend Technologies:** Next.js, Tailwind CSS.
- **AI & Agentic Systems:** OpenClaw Agent Framework, Model Context Protocol (MCP), LLM Tool-Calling, RAG, Claude Skills, llama.cpp, GRPO / RLVR.
- **Streaming & Messaging:** Apache Kafka, Apache Flink, WhatsApp Business API, RCS Messaging.
- **Databases & Search:** PostgreSQL, MongoDB, Elasticsearch, Redis.
- **Cloud & DevOps:** AWS (EC2, S3, Lambda), GCP, Azure, Docker, CI/CD (GitHub Actions).
- **Observability:** Grafana, Prometheus, ELK Stack (Elasticsearch, Logstash, Kibana).

PROFESSIONAL EXPERIENCE

Senior Engineer – Backend Development

Jan 2024 – Present

Quest Global (Client: Reliance Jio)

Hyderabad, India

- **Distributed Systems Architecture:** Architected a fault-tolerant backend ecosystem and supporting **frontend dashboards** for **Reliance Jio** using **Go**, **gRPC**, and **React/Next.js**, ensuring 99.9% system availability across high-traffic workflows.
- **Conversational Agent Platform (OpenClaw + MCP):** Built an **agentic system** on top of the production backend using the **OpenClaw** framework, exposing project services and **Elasticsearch**-backed log analytics as **MCP server** tools. Integrated **WhatsApp** and **RCS** channels so stakeholders can query project status and pull logs from any device — cutting manual operational and support effort by **60%+** across **Jio Business Messaging** and adjacent projects.
- **Event-Driven Pipelines:** Implemented real-time data streaming pipelines using **Apache Flink** and **Kafka**, integrating processed telemetry into **React-based UI dashboards** with sub-second data visibility.
- **Critical Event Management (IPL 2025):** Built a custom log analytics engine and corresponding **frontend observability views** to enhance system monitoring, improving Root Cause Analysis (RCA) speed by **40%** during the **IPL 2025** live streaming season.
- **LLM-Powered Incident Diagnostics:** Integrated **Mistral 7B** into the observability pipeline to auto-summarise error clusters and suggest probable causes from production logs, cutting incident triage time by **20%**.
- **Security Engineering:** Enhanced system security by implementing Role-Based Access Control (**RBAC**) and encryption middleware across both **backend APIs** and **frontend access layers**.

Associate Software Developer

Jun 2022 – Dec 2023

Udify Technologies

Hyderabad, India

- **Greenfield Architecture (Node.js & PostgreSQL):** Designed the database schema and backend and frontend workflow **from scratch** for a Healthcare Management System, utilizing **Sequelize ORM** to ensure strict data integrity and efficient query performance.
- **Microservice Optimization (NestJS & MongoDB):** Took ownership of an existing FinTech service, refactoring the **NoSQL** data models and backend logic to improve system scalability and data retrieval speeds by **30%**.

- **Secure Payment Integration:** Architected a secure payment processing service integrating **Razorpay** and digital wallets, ensuring zero transaction failures for high-volume financial operations.
- **Cloud Security & Compliance:** Implemented **RBAC** (Role-Based Access Control) to secure sensitive patient data in compliance with healthcare standards.

KEY ACHIEVEMENTS

- **Partner Award (Jio):** Recognized for technical excellence and delivering high-impact solutions.
- **Rising Star Award (QuEST Global):** Awarded for rapid career progression and consistent high performance.
- **Spot Awards:** Received two "On-the-Fly" awards for critical contributions to production releases.

PERSONAL PROJECTS

- **LogSentinel v2 — Meta Hackathon (Top 800 of 50,000+ teams, Round 1 qualifier)**

github.com/surya-sirisolla/log-env

Designed a multi-agent SOC simulator for training LLMs on long-horizon incident response with verifiable rewards (**RLVR / GRPO**). Built a 4-role agent team (Incident Commander, App SRE, DB SRE, Security Analyst) with partial observability over a 5-phase DETECT→TRIAGE→MITIGATE→VERIFY→FINAL_REPORT lifecycle and a latent world-state model that only changes under evidence-backed mitigations. Trained **Qwen2.5-7B** via **GRPO** (TRL + Unsloth) with adaptive curriculum; shipped as an **OpenEnv-compliant FastAPI** environment. Composite reward (outcome + detection F1 + severity + efficiency + teamwork) with anti-reward-hacking penalties; benchmarked at **0.49 avg reward vs 0.41 heuristic baseline**, resolving incidents in **8 steps vs 45**.

- **On-Device Mobile Agent (Koog + llama.cpp)**

github.com/surya-sirisolla

Built a fully offline personal mobile agent using the **Koog** agent framework with **llama.cpp** for on-device inference. Benchmarked small language models — **SmolLM2 (350M/700M)**, **LFM2.5 (350M/700M)**, and **Qwen2 0.5B** — for tool-calling latency and accuracy on mobile hardware. Agent queries the device messaging database via tool calls to summarize conversations, surface missed deals or important messages, and track personal spending — entirely offline, no cloud round-trip.

- **MaMenu — QR-Based Restaurant Ordering System**

github.com/surya-sirisolla/ma-menu

Side product: a contactless digital menu and hotel operations platform with **Go** backend, **Next.js** frontend, full RBAC, and end-to-end table & order management.

EDUCATION

Scaler Academy

2024 – 2026

Software Development specialization — System Design, Distributed Systems, DSA

*Curated pattern-based notes for all **LeetCode Top 150** interview questions: github.com/surya-sirisolla/leetcode-top-150*

SRKR Engineering College

2022

Bachelor of Engineering (B.Tech)