

SURYA PERUMAL K

Software Engineer | Backend & Distributed Systems | Applied AI

suryaperumal102@gmail.com | 8270094455 | linkedin.com/in/surya-perumal-k | github.com/surya-102

SUMMARY

Software Engineer with experience building production-grade software across enterprise and startup environments. Strong foundation in Java, Python, C++, data structures, distributed systems, backend development, and system design, with experience owning features from design through testing, deployment, debugging, and production support. Applied experience in Generative AI, LLMs, AI agents, RAG, and Gemini, focused on building scalable and reliable software systems.

SKILLS

Languages & Frameworks: C++ | Java | Python | JavaScript | Flask | SQLAlchemy | FastAPI | React.js | Next.js

Databases & Infrastructure: PostgreSQL | MySQL | Redis | Elasticsearch | Docker | GCP | Linux | GitLab CI/CD

AI & Emerging Tech: LLM Fine-Tuning | AI Agents | Multi-Agent Systems | Gemini API | RAG | MCP

Core Computer Science: Data Structures & Algorithms | Object-Oriented Design | System Design | Distributed Systems

Achievements: LeetCode 645+ (C++) | Google Coherent H2K Skill APAC – Top Builder

EXPERIENCE

Software Engineer [Gramkuruvi \(Fintech Startup\)](#) (Jun 2025 – Jun 2026) Chennai, India

- Led direct engagement with finance and commerce clients, conducting **customer discovery**, requirements gathering, and technical discussions to understand workflows and translate ambiguous business needs into scalable software solutions.
- Owned the complete engineering lifecycle for **3 production-grade platforms**, driving **solution architecture**, **system design**, backend development, **unit testing** and deployment, while contributing to **effort estimation** and identifying and mitigating **technical risks** to ensure robust, future-proof, and scalable software across on-premises and cloud environments.
- Served as the primary technical owner for all platforms, independently resolving production issues, integrating customer feedback into product improvements, and providing ongoing **production support** to ensure system stability.

Member of Technical Staff [\(Jun 2023–Mar 2024\)](#) , **Summer Intern** [\(Apr 2022– May 2023\)](#) Zoho Corporation, Chennai

- Developed a centralized **Device Summary Dashboard** for **EventLog Analyzer** with **100+ device-specific widgets** across **750+ log sources** using **Ember.js**, delivering a unified view of network devices, Linux systems, and security tools.
- Implemented scalable backend services using **Java**, integrating **Elasticsearch** and internal databases to deliver low-latency event retrieval; owned the feature lifecycle from design and development through deployment and production support, **collaborating closely with the technical lead** to review designs and mitigate architectural risks.
- Reduced per-device investigation time by **80%** by consolidating device-specific threats and severity events into a unified dashboard, while contributing to debugging and production issue resolution across **local** and **cloud environments**.

EDUCATION

M.E. in Computer Science [Sivasubramaniya Nadar College of Engineering](#) (Jul 2024 – Mar 2026) CGPA: 9.11

B.E. in Computer Science [National Engineering College](#) (Jun 2019 – Aug 2023) CGPA: 8.56

PROJECTS

Agentic Teacher–Student Framework for Text-to-GraphQL Generation - [Research](#) (Jul 2025 – Mar 2026)

- Designed an **agentic teacher–student framework** using **Gemini 2.5 Flash** to automatically generate, validate, and curate **schema-aware synthetic GraphQL datasets** from the **Spider** benchmark, expanding training data coverage across diverse database domains, improving generalization to unseen schemas, and ensuring high-quality training samples.
- Validated and curated generated queries using **Hasura GraphQL**, then performed **SFT** on **LLaMA 3.1 8B**; the resulting model achieved **90+% execution accuracy** and demonstrated improved generalization across unseen database schemas.

Finance Management Platform - [Industry Project](#) (Jul 2025 – Jun 2026) Live Demo (admin / admin123)

- Engineered a **full-stack loan management system** (**Flask**, **React.js**, **SQLAlchemy**) that replaced manual ledger-based lending operations with a single source of truth for **client accounts**, **EMI schedules**, **payment history**, and document records — cutting record lookup time by **80%** and manual data entry by **60%** across daily collections.
- Built **automated due-tracking** and **real-time dashboards** that surfaced overdue accounts, defaulter patterns, and cash-flow gaps hidden in manual bookkeeping, backed by an **audit-logged approval workflow** for account closures and corrections improving due-collection efficiency by **70%** and enabling same-day decisions on outstanding balances.

Universal AI Decision Intelligence Platform - [Personal Google GenAI Hackathon Project](#) (Jan 2026 – Jun 2026)

- Building **DIOS**, an **AI-native decision intelligence platform** using **Google ADK**, **Gemini**, **RAG**, and multi-agent orchestration, leveraging **agentic coding tools** to scaffold and iterate on pipelines that ingest **structured and unstructured enterprise data** (databases, documents, APIs, files), analyze and semantically understand it, and generate interactive dashboards and widgets with **React.js** through natural language.
- Designing specialized **AI agents** with **MCP (Model Context Protocol) connectors** for data ingestion & understanding, dashboard planning, widget creation, and decision recommendations, integrating **BigQuery**, enterprise tools, APIs, and unstructured sources (PDFs, docs, logs) to deliver explainable, real-time business insights.