

AKASH VARMA

Systems & Platform Engineer

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SUMMARY

Systems Engineer specializing in scalable, real-time distributed systems and IoT infrastructure. Designed device-agnostic ecosystems, custom DSL engines, and high-throughput communication pipelines handling 10,000+ devices. Focused on engineering reusable core platform layers that solve complex architectural challenges and deliver production-grade deployments.

TECHNICAL SKILLS

- **Languages:** TypeScript, JavaScript, Node.js, Python, SQL
- **Frameworks & Libraries:** Express.js, React, Next.js, React Native, Prisma ORM
- **Infrastructure & Tools:** Docker, Kubernetes, Redis, PostgreSQL, WebSockets, MQTT, Distributed Systems, Event-Driven Architecture, REST APIs, Git/GitHub Actions, Linux/Bash

PROFESSIONAL EXPERIENCE

WaveFuel Solutions

Platform Engineer

Hyderabad, India

08/2024 - Present

- **Architected a device-agnostic IoT platform** supporting heterogeneous devices (MQTT, WebSockets, HTTP). Eliminated per-client custom infrastructure, reducing new hardware integration time by ~40% based on internal benchmarks.
- **Designed a custom domain-specific language (DSL)** and runtime parser (FUS Script) as the platform's core extensibility layer. Enabled runtime definition of device protocols and data transformations, bypassing codebase redeployments.
- **Engineered a distributed, real-time messaging layer** using Redis-based routing to process thousands of concurrent MQTT and WebSocket connections across clustered instances.
- **Led core system development for enterprise client deployments**, translating requirements into hardware-software solutions that drove ~₹40L+ in project value.
- **Mentored junior engineers and established strict code review standards**, accelerating delivery timelines and reducing production bugs.

Varsun eTechnologies

Software Engineer (Consultant for WaveFuel)

Hyderabad, India

08/2022 - 10/2024

- **Directed architectural decisions in a high-pressure environment**, taking full ownership of real-time system delivery from initial concept to live production.
- **Spearheaded end-to-end development of Electric Vehicle (EV) charging infrastructure**, optimizing the OCPP 1.6J protocol to achieve secure, sub-second telemetry and ~99% uptime in production.
- **Developed a cross-platform mobile SDK (React Native)** that abstracts complex connection flows, significantly cutting IoT device onboarding friction and securing network provisioning across large-scale deployments.
- **Implemented an automated form mapping platform** integrated with legacy ERP systems, eliminating manual data entry bottlenecks and saving clients 15+ hours weekly.

PROJECTS

Digital Twin Simulation Engine | *Event-Driven Architecture, IoT Integration* 2024

- **Developed a reusable digital twin simulation engine** to rapidly generate industry-specific IoT environments without modifying core infrastructure.
- Engineered a plug-and-play architecture to stress-test 10,000+ simulated concurrent devices, removing physical hardware dependencies for load testing and client demonstrations across multiple industries.

Autonomous Job Manager | *AI Pipelines, Docker, Async Processing* 2023

- **Built an AI-driven job orchestration system** to securely execute asynchronous task pipelines within isolated Docker containers.
- Implemented an asynchronous pipeline for long-running workflows with automated error recovery, executing complex tasks with zero manual intervention.

EDUCATION

BV Raju Institute of Technology
B.Tech. in Computer Science & Engineering

Hyderabad, India
2018 - 2022