

Danaboina Shanmukeshwar

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SUMMARY

Senior Software Development Engineer with 4+ years building distributed systems with Python and Rust. Designed 57 WASM plugins in Rust (Extism), multi-tenant platforms with hash-partitioned PostgreSQL, and real-time AI pipelines. Specialized in backend architecture, system design, and infrastructure at scale.

SKILLS

- **Languages:** Rust, Python, TypeScript, SQL
- **Rust Ecosystem:** Tokio, WebAssembly, Extism, Cargo Workspaces
- **Backend & Databases:** FastAPI, PostgreSQL, Redis, Elasticsearch, Neo4j, Kafka
- **Cloud & DevOps:** AWS, Kubernetes, Terraform, Docker, GitHub Actions
- **Architecture:** System Design, Distributed Systems, Microservices

EXPERIENCE

Senior Software Development Engineer

Mar 2025 - Present

Arrowhead

Bangalore, India

- Architecting conversational AI platform with 57 WASM plugins in Rust (Extism framework)
- Built 7 Rust CLI tools with Tokio async runtime for deployment automation and plugin management
- Designed multi-tenant API with hash-partitioned PostgreSQL and HMAC authentication with replay attack prevention
- Real-time voice pipeline with Deepgram STT, ElevenLabs TTS, multi-LLM orchestration (10+ providers)
- Multi-region AWS infrastructure with Kubernetes deployment

Founding Engineer & Head of Technology

Jun 2024 - Mar 2025

AroundMe (Closed)

Hyderabad, India

- Founded and led team of 10 building location-based social app (65K+ downloads across Play Store and App Store)
- Architected distributed backend: FastAPI, PostgreSQL, Redis cluster (master + 3 slaves), Elasticsearch, Neo4j
- Implemented ML-powered recommendations and AI content moderation
- Kubernetes deployment with GitOps (ArgoCD) and GitHub Actions CI/CD

Software Development Engineer

Aug 2022 - May 2023

OpenCubicles Technologies

Hyderabad, India

- Built smart AC maintenance system with camera feeds, custom FTP server, and AWS Lambda pipeline for automated fault detection
- Developed Shopify Builder Plugin with React drag-and-drop interface and bidirectional cross-iframe communication
- Implemented Kafka event processing and Redis caching for real-time analytics

Software Development Engineer Intern

Jun 2021 - Aug 2022

OpenCubicles Technologies

Hyderabad, India

- Built offline-first React Native app for solar installations with WatermelonDB, facial recognition, and barcode scanning
- Developed oil industry CRM with integrated eSign and collaboration tools
- Created backend services with Django and Next.js with CI/CD pipelines

EDUCATION

JNTUH, Hyderabad, India

Bachelor of Technology, Electronics and Communication Engineering

2018 - 2022

CERTIFICATIONS

- [GitHub Foundations](#), GitHub (Mar 2025)
- [Microsoft AI](#), Microsoft (Jan 2021)
- [IBM Cloud Essentials](#), IBM (May 2021)
- [Stanford Internet of Things](#), Stanford (Jan 2021)

PROJECTS

Enterprise Conversational AI Platform 2025

- Multi-tenant voice AI platform with HMAC authentication, hash-partitioned PostgreSQL, 57 WASM plugins in Rust (Extism), real-time voice pipeline (Deepgram + ElevenLabs), and multi-LLM orchestration across 10+ providers.

AroundMe - Location-Based Social Platform 2024

- Founded and architected distributed backend with FastAPI, PostgreSQL, Redis cluster, Elasticsearch for geospatial queries, Neo4j for social graph, and ML-powered recommendations. Led team of 10. Scaled to 65K+ downloads.

Memli - AI-Powered Flashcard App 2023

- React Native learning app with ML-generated mnemonics and YOLO computer vision to detect and explain textbook images. Built intelligent quiz system with personalized assessments and spaced repetition.

Rust CLI Tooling 2025

- Cargo workspace with 7 CLI tools for deployment automation and plugin management. Features Tokio async runtime, Google OAuth2 with token persistence, builder-pattern HTTP client, and unified error handling.