

# RAMITH K S

## Senior Backend Engineer

+91 9481968808 | ramithgowdakundoor123@gmail.com | ramithks.github.io/portfolio

in ramith-k-s | ramithks

Bengaluru, India



## PROFESSIONAL SUMMARY

Senior Backend Engineer with 4+ years of experience building high-performance APIs and distributed systems using Python (FastAPI) and AWS. Expert in delivering sub-300ms P95 latency, 4x query performance gains, and scaling platforms handling 10,000+ daily requests. Focused on leading teams and shipping reliable, production-grade software.

## PROFESSIONAL EXPERIENCE

### Zolnoi Innovations

#### Senior Backend Engineer

Oct 2024 - Present | Bengaluru

Industrial IoT analytics company serving 50+ factories

- Architected and built AI-driven factory analytics backend processing 10,000+ daily requests using FastAPI, PostgreSQL, Redis, and MongoDB time-series storage.
- Designed and implemented a multi-channel notification system from scratch (push, email, mobile) processing 5,000+ alerts per day with 99.5% reliability.
- Slashed API P95 latency from 800ms to 300ms (60%) via strategic Redis caching and deep database query optimization.
- Raised Pytest coverage to 85%, preventing 30+ production regressions while achieving 4x faster queries via schema redesign and indexing.
- Orchestrated development across FastAPI microservices, Django Admin, and Flutter apps supporting Web, Android, and iOS.

### JustPoll (Streetlab Internet Pvt Ltd)

#### Founder & CTO

Jul 2021 - Aug 2024 | Bengaluru

Social polling platform enabling opinion-based community engagement

- Founded and scaled a social media platform to 1,500+ Android and 600+ iOS users; architected TypeScript backend and Flutter mobile application.
- Boosted query performance by 40% via schema optimization; cut deployment time by 60% with ECS autoscaling and CI/CD pipelines.
- Deployed comprehensive monitoring with Grafana and Redis task queues, maintaining sub-200ms P95 latency and reducing production incidents by 45%.
- Led 5-member engineering team through 20+ production releases; improved user retention by 65% through mentoring and architecture reviews.

## TECHNICAL SKILLS

### Backend & Languages

Python, FastAPI, Node.js, TypeScript, AsyncIO, REST, gRPC, WebSockets

### Frontend & Mobile

React, Flutter, React Native, Progressive Web Apps, Offline-First Architecture

### Databases

PostgreSQL, Redis, MongoDB, MySQL, Query Optimization, Indexing, Schema Design, ACID Transactions

### Systems & Architecture

Microservices, Distributed Systems, Event-Driven Architecture, Caching, Load Balancing, High Availability, Rate Limiting, API Gateway, Observability

### Cloud & DevOps

AWS (ECS, EC2, S3, CloudWatch, Lambda), Docker, Terraform, GitHub Actions, CI/CD, Infrastructure Automation

### Testing & Reliability

Pytest, Integration Testing, SLO/SLI Monitoring, Incident Management, Root Cause Analysis

## EDUCATION

### Bachelor of Computer Applications

Christ University, Bengaluru

2018 - 2021 | Bengaluru

CGPA: 3.3 / 4.0

## RECOGNITION

- ★ HackBangalore Winner 2024
- ★ AWS Cloud Foundations Certified
- ★ Open Source Contributor

## PROJECTS

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### ● AlgoHabit — AI-Powered Learning Platform

🔗 [algohabit.com](https://algohabit.com)

- Built and launched AlgoHabit, an AI-powered DSA learning platform designed around habit formation, streaks, and gamified progression with 50+ active users.
- Engineered React PWA achieving 95+ Lighthouse performance score with offline-first architecture using service workers for 100% offline functionality.
- Designed an AI-powered content pipeline using OpenRouter to convert user-uploaded syllabi into structured learning plans with 90%+ accuracy, reducing AI costs by 70%.
- Deployed Supabase backend with Row-Level Security (RLS) securing 400+ user records; enabled zero-downtime Razorpay payments via serverless edge functions.
- Implemented gamification engine tracking 10,000+ XP transactions, improving 30-day retention by 60%.

### ● Ledgerly — Smart Finance Tracker SaaS

Personal Project

- Built full-stack finance and subscription tracking PWA with analytics, renewals, reminders, and insights across a single responsive React shell.
- Developed FastAPI backend exposing categorization, spend forecasting, and anomaly detection APIs with logging, CORS, and health checks.
- Built ML pipelines using TF-IDF + Logistic Regression for subscription classification (88% accuracy), ETS/moving-average forecasting (82% accuracy), and MAD-based anomaly detection.
- Implemented offline-first React 18 frontend with Tailwind, service workers, subscription CRUD, CSV import/export, and keyboard-driven UX.
- Developed Pytest suite covering 40+ endpoints with 92% code coverage.

### ● HelpMyBuddy — HackBangalore Winner 2024

🔗 [github.com/SiliconNinjas](https://github.com/SiliconNinjas)

- Built real-time geo-based emergency help marketplace connecting users to nearby helpers for breakdowns and medical emergencies.
- Designed a low-latency geospatial matching engine using MongoDB spatial queries, achieving <500ms matching within a 5 km radius.
- Developed React Native (Expo) mobile app enabling live location sharing, helper discovery, and emergency request workflows.
- Built TypeScript-based Node.js + Express backend to handle authentication, matching, and request orchestration with FastAPI-powered ML services.

### ● AG-Wallet — Agricultural Supply Chain Platform

2020 – 2021

- Built Android app connecting farmers to distributors with real-time price tracking and downstream visibility.
- Integrated Google Maps API for location-based discovery and rating system for distributor evaluation.
- Enabled transparent agricultural supply chain with location-based discovery and quality ratings.