

ROHITH MOHANAN

Python Backend Engineer | API Gateway Architecture | ERP Integrations

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[LinkedIn](#) | [Portfolio](#)

Open to relocation and visa sponsorship | Available immediately

PROFESSIONAL SUMMARY

Backend engineer with 3+ years of experience designing and building production-grade systems using Python and Django. Architected Frontier, a centralized API gateway handling 5,000 requests/minute across N mobile applications, reducing client-side API latency from 2.5s to <500ms. Experienced in multi-tenant architectures, real-time data synchronization, and ERP integration. Seeking mid-level backend roles in distributed systems and API infrastructure.

TECHNICAL SKILLS

Languages: Python (Advanced), JavaScript/TypeScript, SQL (MariaDB, MySQL, PostgreSQL, SQLite)

Frameworks: Django, Frappe Framework, FastAPI, React.js, Flask

System Design: REST APIs, API Gateway Architecture, Multi-tenant Systems, Event-driven Architecture, WebSockets, Distributed Systems

Infrastructure: AWS (EC2, API Gateway, Route53), Redis (Caching), MariaDB, Git, CI/CD Pipelines

Testing: Pytest, Playwrights, Automated Testing

Methodologies: Agile/Scrum, Clean Architecture, TDD

PROFESSIONAL EXPERIENCE

KAS Mentor | *Software Developer* | **Oct 2023 – Present** | Trivandrum, India

- Architected Frontier, a centralized API gateway and middleware router built on the Frappe framework, orchestrating N-to-N routing between N mobile apps and N content servers. Designed for 500–5,000 API requests/minute and 10,000 DAU with a 30GB–100GB MariaDB central database.
- Reduced API response latency from 2.5s to <500ms (P95) by rewriting slow endpoints with optimized algorithms, reducing time and space complexity. Measured via server response time logs.
- Automated content ingestion pipeline, eliminating manual exam and course entry by the operations team. Reduced ops workload by 30% (hours/week).
- Built and shipped new product features: PDF viewer, descriptive exams, offline content download, and enhanced download options via new REST APIs.
- Improved mobile app stability and user satisfaction by optimizing backend performance and collaborating on UI/UX improvements, resulting in fewer user complaints and higher retention.
- Integrated ERPNext for secure financial workflows, ensuring audit compliance and reliable data handling.
- Live apps: KAS Mentor (Android/iOS) — play.google.com/store/apps/details?id=com.kasmentor.studentapp

Independent Software Consultant | Full-Stack Developer | Jul 2022 – Oct 2023

- Delivered full-stack web and mobile solutions for clients using Python/Django backends and React frontends.
- Built an IELTS/OET/PTE exam portal with automated grading, timed assessments, and programming problem sets (HackerRank-style), using Django REST Framework, FastAPI, and React.
- Developed custom ERP integrations and API middleware for SME clients.
- Maintained and optimized legacy Django codebases, improving query performance and reducing technical debt.

Acube Innovations Pvt. Ltd. | Software Developer | Apr 2022 – Jul 2022

- Customized and extended ERPNext modules for enterprise clients, translating business workflows into scalable technical implementations.
- Refactored legacy codebases to improve maintainability and reduce technical debt.
- Contributed to system design documentation and improved development standards.

INFOX Technologies | Python Fullstack Developer | Oct 2021 – Apr 2022

- Led end-to-end development of a real-time analytics dashboard using Django and React, serving complex data processing and reporting workflows.
- Eliminated N+1 query bottlenecks and optimized Python code, reducing system latency from seconds to milliseconds for critical reporting endpoints.
- Designed backend architecture for multi-source data ingestion and real-time visualization.

Oracuz Infotech | Python AI/ML Intern | Dec 2020 – Jul 2021

- Built predictive models for structured data classification using scikit-learn.
 - Performed data cleaning, transformation, and analysis using Pandas and NumPy.
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CORE PROJECTS

Frontier – Centralized API Gateway & Middleware Router | Lead Architect & Developer

- Designed an N-to-N routing system: N mobile apps connect through a universal API endpoint to N distinct content servers, with request validation via app signatures/IDs.
- Built on Frappe framework with MariaDB (central DB), Redis (cache + message broker), and Python RQ background workers for async task processing.
- Implemented data sanitization, standardization, and JSON payload transformation to ensure consistent client responses across heterogeneous backend systems.
- Designed for horizontal scaling: 500–5,000 req/min, 10K DAU, 30GB–100GB data.
- Architecture: github.com/rohithmohanan1 (system diagram + documentation)

Astrix – IELTS/OET/PTE Assessment Platform | Full-Stack Developer

- Built a HackerRank-style exam platform with timed assessments, automated grading, and descriptive answer evaluation.

- Backend: Django REST Framework + FastAPI for high-performance endpoints.
 - Frontend: React.js with real-time progress tracking and responsive UI.
 - Supported multiple exam types: MCQ, descriptive, and programming problem sets.
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EDUCATION & CERTIFICATIONS

B.Tech in Computer Science (Completed 2 years coursework)

- Foundation in Data Structures, Algorithms, Operating Systems, and Database Management Systems.

Grade 12 (Science - Computer & Maths) | Result: 78%

Certifications:

- **Deep Learning Specialization** — DeepLearning.AI
- **Neural Networks and Deep Learning** — DeepLearning.AI
- **Improving Deep Neural Networks** — DeepLearning.AI
- **Introduction to TensorFlow for AI, ML, and Deep Learning** — DeepLearning.AI
- **Python Essentials 1 & 2 (PCEP/PCAP)** — Cisco Networking Academy
- **Agile Scrum Master & Kanban** — Udemy