Ajay Rathnam V
Python Full Stack Developer

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Tirunelveli, Tamil Nadu

SUMMARY

Full Stack Developer specializing in React and Python (Django/FastAPI), building scalable web applications and high-performance REST APIs. Experienced in RBAC, microservices architecture, and end-to-end frontend–backend integration. Proficient in GenAI systems, including RAG-based chatbots for intelligent document retrieval.

TECHNICAL SKILLS

Frontend Development: CSS3, HTML5, Material-UI, React, React Native, Tailwind CSS
Backend Development: Python, Django, Django REST Framework, FastAPI, REST APIs, Auth (JWT), Async APIs
Databases: MongoDB, PostgreSQL, SQL
AI & Integration: Document Extraction, OpenAI API Integration, RAG-based Chatbot Development, Vector Search
Tools & DevOps: Git, GitHub, Postman, Docker, GitHub Actions (CI/CD), Redis, Celery

PROFESSIONAL EXPERIENCE

SkyRich Tech Solutions | Full Stack Developer | Chennai | May 2025 – Present

- Built a Manufacturing Maintenance Management System (CMMS) using React + Django, supporting preventive maintenance, breakdown ticketing, technician task tracking, improving maintenance task visibility by ~30%.
- Implemented RBAC, machine master modules, and secure role-based workflows across maintenance roles.
- Designed REST-based microservices using Django/FastAPI, integrated Redis for caching, implemented Celery for scheduled/manual tasks, and automated build & deployment using GitHub Actions CI/CD.
- Developed GenAI features including a RAG-based chatbot (OpenAI + embeddings) with Redis-backed vector search and a real-time safety monitoring system using FastAPI (async).

VOSA Tech | Full Stack Developer | Tirunelveli | August 2024 – May 2025

- Developed an Agency Management System automating stock, invoicing, and batch-wise inventory using React and Django.
- Reduced billing errors by 20% and improved daily operational efficiency by ~15% through workflow automation and UI optimization.
- Collaborated with business users in Agile/Scrum-based development cycles to gather requirements and deliver production-ready modules.

PROJECTS

Manufacturing Maintenance Management System with AI Assistant

- Developed a CMMS platform using React and Django for preventive and breakdown maintenance.
- Implemented machine master modules, work-order tracking, and RBAC-based access control, improving plant-level operational visibility by ~30%.
- Integrated a RAG-based AI chatbot using FastAPI and OpenAI embeddings to enable semantic search over equipment manuals and provide contextual maintenance guidance.
- Supported multilingual responses and embedded AI-driven assistance directly into maintenance workflows.

Real-Time Safety Monitoring System

- Developed a real-time safety monitoring system using FastAPI (async) to process live camera streams and detect lift-usage violations.
- Designed low-latency REST APIs for real-time alerts, monitoring dashboards, and safety compliance tracking.

EDUCATION

St. Xavier's College, Palayamkottai – B.Sc. Mathematics – July 2019 – April 2022
St. John's College, Palayamkottai – M.Sc. Networking & IT – July 2022 – April 2024

CERTIFICATIONS AND INTERNSHIP

MERN Stack Development Course & Internship – eFloz IT Services – December 2023 – July 2024