

PUGAZHENDHI J

Software Engineer

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PROFESSIONAL SUMMARY

Software Engineer with 3+ years of experience building scalable backend systems and full-stack applications using Python, Django, FastAPI, React, and AWS. Experienced in designing high-performance REST APIs, serverless architectures, CI/CD pipelines, and AI-driven automation. Proven ability to deliver secure, reliable, and compliant solutions in GxP, HIPAA, and GDPR environments, improving system performance, reducing manual effort, and enabling cost-efficient cloud deployments.

TECHNICAL SKILLS

Backend & APIs: Python, Django, FastAPI, REST API, Async Programming

Frontend: React, TypeScript, Context API

Databases: PostgreSQL, MySQL, DynamoDB

Cloud & Infrastructure: AWS (EC2, Lambda, S3, Amplify, Cognito, API Gateway, SQS, SES), GCP

DevOps & Tools: Git, GitHub Actions, CI/CD, Jira

AI & External Integrations: OpenAI APIs, Stripe, Google Calendar API, Outlook Calendar API

WORK EXPERIENCE

Software Engineer — Sense7ai Data Solutions

March 2023 – Present

- Designed and delivered scalable full-stack applications using Python (Django, FastAPI), React, MySQL, PostgreSQL, and AWS, improving overall system performance and maintainability.
- Built and optimized RESTful APIs handling high-volume data workflows, reducing API latency by up to 35% through query tuning and asynchronous processing.
- Architected and managed AWS cloud infrastructure (EC2, Lambda, S3, Cognito, SQS, SES, API Gateway) ensuring 99.9% uptime, secure deployments, and cost-optimized scaling.
- Implemented CI/CD pipelines using GitHub Actions, automating builds, tests, and deployments—reducing release issues by 30% and enabling faster iteration cycles.
- Developed HIPAA- and GxP-compliant systems with audit trails, automated alerts, and secure data flows meeting strict regulatory and security requirements.
- Built intelligent recruitment automation features including AI-based resume parsing and job matching, improving matching accuracy by 40%.
- Developed a smart, calendar-integrated interview scheduling system using Google & Outlook Calendar APIs, reducing coordination time by 70%.
- Collaborated closely with Product, QA, DevOps, and AI teams, contributing to sprint planning, code reviews, requirement analysis, and risk mitigation.
- Improved DevOps workflows with better logging, monitoring, and exception tracking, enhancing reliability and reducing downtime.

KHR Technologies | Frontend Developer

Sep 2022 – Mar 2023

- Developed modular, reusable UI components using React, TypeScript, JavaScript, improving frontend maintainability and reducing code duplication.

- Integrated REST APIs with strong error handling and Context API–based state management, reducing UI-related defects by 35%.
- Optimized page load performance through component-level optimization and render control, improving load speed by 25%.
- Coordinated with backend teams to align API contracts and ensure seamless, high-quality user experiences. Contributed to UI architecture for a large-scale enterprise ERP product serving thousands of users.

PROJECT EXPERIENCE

1. Clinical Data Automation Platform

Python, FastAPI, PostgreSQL, AWS (EC2, Lambda, Amplify), GxP, HIPAA, GDPR

- Architected an AI-driven automation platform to streamline Root Cause Analysis (RCA) and CAPA workflows for clinical trials, reducing manual documentation time by 50%.
- Implemented compliance automation aligned with GCP/GxP standards, enhancing audit readiness and regulatory accuracy.
- Designed interactive audit dashboards providing real-time risk insights, improving deviation tracking and compliance governance.
- Integrated secure audit trails, automated alerts, and encrypted data processing, strengthening HIPAA and GDPR compliance.

2. Zita ATS – AI-Powered Applicant Tracking System

React, TypeScript, Django, MySQL, AWS, OpenAI API, Stripe, Google/Outlook APIs

- Developed an intelligent ATS platform integrating OpenAI-powered resume parsing and job-candidate matching, improving matching accuracy by 40%.
- Built a calendar-integrated interview scheduler with Google & Outlook APIs that automated availability syncing and slot booking, reducing coordination time by 70%.
- Integrated Stripe for subscription-based billing, secure payments, and multi-tier access controls.
- Optimized backend logic and frontend performance, enhancing system scalability and ensuring a seamless experience for recruiters and applicants.
- Implemented secure authentication, structured API design, and automated background tasks to improve system reliability.

3. Serverless ATS API (Standalone Backend)

Python, React, TypeScript, AWS Lambda, API Gateway, DynamoDB, S3, OpenAI API, Stripe

- Architected a fully serverless backend using AWS Lambda, API Gateway, and DynamoDB, reducing infrastructure costs by 40% while improving scalability.
- Built and deployed seven OpenAI-powered microservices for resume parsing, job-fit analysis, candidate scoring, and role recommendations.
- Implemented CI/CD automation using GitHub Actions, enabling zero-downtime deployments across environments.
- Optimized file handling and upload workflows using S3, reducing processing time by 35% while maintaining strong security.

EDUCATION

Bachelor of Computer Applications (BCA)

PSG College of Arts and Science, Coimbatore

June 2019 – May 2022