

# PUGAZHENDHI J

## Software engineer

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### PROFESSIONAL SUMMARY

Versatile and results-oriented Software Engineer with 3+ years of experience in designing and delivering full-stack web applications and AI-integrated systems. Proficient in React, Django, FastAPI, and AWS, with a proven record of building modular UIs, automating workflows, and improving system performance. Adept at deploying machine learning solutions and scalable cloud infrastructure in compliance-heavy environments (GxP, HIPAA, GDPR). Passionate about clean architecture, intelligent automation, and delivering user-centric solutions.

### TECHNICAL SKILLS

- **Languages:** Python, JavaScript, TypeScript
- **Frontend:** React.js, HTML5, CSS3, Context API
- **Backend:** Django, FastAPI, REST APIs
- **Cloud Platforms:** AWS (EC2, Lambda, S3, Amplify, Cognito, API Gateway, SQS, SES), GCP
- **Databases:** MySQL, PostgreSQL, DynamoDB
- **Tools & DevOps:** Git, GitHub Actions, CI/CD, Jira, Confluence
- **AI & Integrations:** OpenAI APIs, Stripe, Google & Outlook Calendar APIs

### WORK EXPERIENCE

#### Sense7ai Data Solutions | Software Engineer

March 2023 – Present

- Designed and deployed end-to-end full-stack applications using React (frontend) and Python (Django REST & FastAPI) with MySQL and PostgreSQL.
- Integrated AI models (Mistral, DeepSeek) to automate deviation detection and clinical data classification, cutting manual review time by 50%.
- Built and maintained scalable AWS infrastructure, including EC2, Lambda, S3, Cognito, API Gateway, SQS, SES, achieving 99.9% uptime.
- Configured EC2-based frontend/backend environments with automated provisioning scripts and CI/CD pipelines, reducing deployment errors by 30%.
- Collaborated across cross-functional teams to deliver stable, production-grade features in GxP-compliant and high-availability environments.
- Integrated OpenAI APIs to parse and match resumes, improving match accuracy by 40%.
- Built an automated, calendar-integrated interview scheduler that cut coordination time by 70%.

#### KHR Technologies | Frontend Developer

Sep 2022 – Mar 2023

- Developed modular, responsive UI components using React and JavaScript for an enterprise ERP platform.
- Integrated REST APIs with strong error handling, reducing UI-related bugs by 35%.
- Focused on reusable design patterns and clean state management using React Hooks and Context API.

## KEY PROJECTS

### Clinical Data Automation Platform

*Python, FastAPI, PostgreSQL, AWS (EC2, AWS Serverless Services, AWS Amplify)*

- Designed and implemented a system to automate Root Cause Analysis (RCA) and Corrective and Preventive Action (CAPA) documentation. Ensured full compliance with Good Clinical Practice (GCP) standards in clinical trial workflows, reducing manual effort and audit risk.
- Led clinical risk evaluations and built interactive audit dashboards for compliance monitoring. Provided real-time visibility into deviations and risks, enhancing GxP governance and readiness for regulatory inspections.
- Developed machine learning models to classify and tag large volumes of trial datasets. Enabled clinical researchers to make faster, data-driven decisions by automatically identifying study-critical data types.
- Engineered secure ML pipelines to analyze and model clinical data while meeting HIPAA and GDPR regulations. Integrated encryption, RBAC, and automated compliance checks into the system, ensuring patient data safety and regulatory adherence.

### Zita ATS Platform

*React, TypeScript, Django, MySQL, Stripe, Calendar (Google, Outlook), OpenAI*

- Integrated OpenAI's language models to parse resumes and match them to job descriptions. Implemented a candidate scoring system that increased parsing accuracy by 40%, significantly improving the quality of shortlisting.
- Built a calendar-integrated interview scheduler to automate availability syncing, slot booking, and notifications. This feature reduced recruiter–candidate coordination time by 70%, accelerating the hiring cycle.
- Integrated Stripe for subscription-based payments and tiered pricing.

### Standalone Serverless ATS API

*Python, React, AWS Serverless Services, OpenAI, Stripe*

- Designed a fully serverless backend architecture using AWS Lambda, API Gateway, and DynamoDB to support scalable ATS features while reducing infrastructure costs by 40%.
- Integrated 7 OpenAI-powered features, including resume parsing, candidate scoring, job fit analysis, role matching, and profile summarization — all via RESTful APIs.
- Built a CI/CD pipeline with GitHub Actions for automated testing and zero-downtime deployments. Implemented usage tracking and subscription-based monetization, enabling flexible billing and feature control per customer tier.
- Integrated Stripe for subscription-based payments and tiered pricing. Enhanced document handling performance using AWS S3, reducing upload/processing time by 35%, while ensuring secure access and encryption.

## EDUCATION

**June 2019 – May 2022**

### Bachelor of Computer Applications (BCA)

PSG College of Arts and Science, Coimbatore