

# Zaid Ahmad

New Delhi, India 110025

+91 8585971473/ +91 8826210811

zaidahmad886@gmail.com

## Personal Summary

Over 6 years of experience as a back-end software engineer with expertise in **Python, Generative AI, and ReactJS**. Proven track record in all phases of the software development lifecycle, including Backend design & UI design, deployment, and optimization. Specialized in creating and implementing advanced Generative AI and Agentic AI systems using state-of-the-art technologies.

## Skills

- Programming: **Python expert**, JavaScript, Go(basic)
- Framework: **FastAPI**, Flask, Django
- UI framework: ReactJS, HTML, CSS
- AWS, Azure, Redis, and Celery
- Docker, K8s, CI/CD
- Tools: Jenkins, Grafana
- **Generative AI**: LangChain, LangSmith, Vector Store, **LLM, Prompt engineering**, Semantic Configuration, embeddings, AWS bedrock, Azure AI search & Open AI
- **System design, design pattern**
- Database: PostgreSQL, MySQL, DynamoDB
- Linux, Shell, Git, JIRA

## Experience

**Senior Software Engineer**, 04/2024 – Current

**MODER** – WFH, New Delhi India

Expert in Generative AI and Agentic AI, with hands-on experience developing and deploying advanced solutions for the U.S. mortgage industry. Delivered production-grade applications, including a ChatGPT-like assistant and RAG pipelines for intelligent document Q&A using mortgage forms (Form 1003, W-2s, paystubs). Leveraged Python, FastAPI, React.js, LangChain, Pinecone, and LandSmith to build scalable, real-time systems.

### Key contributions:

- Designed and fine-tuned LLMs for document entity extraction and classification.
- Built RAG pipelines using LangChain and Pinecone to automate underwriting and loan review.
- Applied prompt engineering and agentic AI techniques for enhanced context-aware reasoning.
- Integrated OpenAI, Amazon Bedrock, and custom LLM APIs for real-time document intelligence.
- Extracted insights directly from Encompass, reducing manual effort, and improving transparency.

**UI Development (React.js):** Designed and developed dynamic chatbot UIs, connected to different knowledge bases. These UIs provided users with an interactive GenAI experience for document Q&A and loan guidance.

### DevOps and Cloud Deployment:

- Containerized FastAPI apps using Docker, deployed on EC2 within VPCs for security and scalability.
- Integrated Redis for caching, Lambda for serverless workflows, and SNS for asynchronous notifications.
- Used API Gateway to manage scalable RESTful endpoints.
- Configured the Application Load Balancer (ALB) for routing and scaling.
- Implemented Amazon OpenSearch and Pinecone for indexing and querying document content within RAG pipelines.
- Managed deployment infrastructure with S3, CloudFront, and Route 53 for secure, global web app hosting.
- AWS: EC2, LB, VPC, Route 53, ECR, API Gateway, Lambda, S3, SQS, Elastic Redis cache, Bedrock, LLM (Cloud 3.5 Sonnet), OpenSearch.
- Azure: AI Search, Function App, OpenAI, LLM (GPT-4o, GPT-4o-mini), Foundry, Key Vault.

## **Software Developer, 04/2023 – 03/2024**

### **VACO BINARY – Delhi**

- Enhanced the performance of a CMS (Content Management System) developed in FastAPI and performed unit tests.
- Design a DAG in Airflow for various use cases.
- Created a Lambda function and wrote unit test cases using pytest, achieving 100 percent code coverage.
- Technology: FastAPI, AWS (RDS, Lambda, S3, SQS), Azure DevOps, Airflow, and MySQL.

## **Software Engineer, 04/2022 – 03/2023**

### **BIOFOURMIS – Bangalore, Karnataka**

- Design code that fetches live ECG data from AWS IoT Core, which communicates with the web using Socket.IO for web ECG plotting.
- Enhanced performance of the Rule Engine service and dashboard APIs by code and query optimizations, caching using Redis.
- Implemented Kafka-based communication between services, and significantly reduced errors.
- Technology: Flask, FastAPI, AWS (RDS, DynamoDB, S3), Redis, Kafka, Celery, PostgreSQL, Jenkins, and Grafana.

## **Business Analyst, 06/2019 – 04/2022**

### **EXL – Delhi**

- Developed an API in Flask and used Celery to speed up performance.
- Worked on image processing, designed a machine learning model, and deployed it.
- Machine Learning - Developed model (Fertility Test) applied feature engineering, preprocessing data, trained the model and evaluate the model, and deployed it for inference.
- Technology: Django, Flask, Celery, AWS (RDS, S3, Lambda, DynamoDB), MySQL, and Shell.

## **Education**

**06/2019 Jamia Millia Islamia – New Delhi, Delhi**

**Master of Computer Application**

GPA: 7.96 / 10

**06/2016 University of Allahabad – Prayagraj, UP**

**Bachelor of Science**

## **Links**

- <https://github.com/20162877?tab=repositories>
- <https://www.linkedin.com/in/syed3474/>