

# Ali Hussain

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[| Github](#)

## SUMMARY

Highly motivated and results-oriented Artificial Intelligence Engineer with a strong foundation in machine learning and deep learning algorithms. Proven ability to develop and deploy AI/ML models, analyze complex datasets, and implement natural language processing techniques. Expertise in Python, Java, and Kotlin, with a strong understanding of cloud platforms like AWS and Azure. Possessing a solid understanding of software development best practices, including agile methodologies and DevOps principles. Eager to contribute to innovative AI solutions and drive impactful business outcomes.

## SKILLS

### Machine Learning

Supervised Learning, Unsupervised Learning, Deep Learning, Natural Language Processing, Model Training and Evaluation, Feature Engineering

### LLMs

Experience in fine tuning and utilization (OpenAI, Anthropic Claude, Google Gemini, Meta LLaMA)  
Developed advanced prompt engineering strategies to improve LLM outputs.

### Gen AI

Solutioning and RAG implementation.  
Worked on agentic AI systems, Google ADK, LangChain and MCP servers.  
Performed fine-tuning of language models using RAG techniques.  
Integrated knowledge graphs to enhance context-aware retrieval.  
Applied hyperparameter tuning for optimization.

### Cloud Platforms

AWS (SageMaker, EMR, Glue, Bedrock, EC2, S3, Lambda, DynamoDB, CDK, SDKs), Azure (AI Services, Machine Learning, Cognitive Services), Google Cloud Platform.

### Programming Languages

Python (Pandas, NumPy, Scikit-learn, TensorFlow/PyTorch), Java, Kotlin

### Machine Learning Libraries

Scikit-learn, TensorFlow, PyTorch, XGBoost, Spacy, NLTK, OpenCV

### Databases

SQL, NoSQL (MongoDB, DynamoDB), Graph DB (Neo4j Knowledge Graph)

### DevOps

Git, Bitbucket, Jira, Confluence, Jenkins

### Tools

Visual Studio Code, PyCharm, Android Studio, Jupyter Notebook, AWS Console, Azure AI Studio, SageMaker Studio

### Mobile Development

Android (Java, Kotlin, Android Studio, MVVM, Jetpack Compose)

### Other

Agile Methodologies, REST APIs, Unit Testing, CI/CD

## WORK EXPERIENCE

### Specialist [ AI Engineer ]

Current

#### Tata Elxsi

Chennai

- Developed and deployed machine learning models for various applications, including predictive maintenance, fraud detection, and customer churn prediction.
- Developed and deployed advanced machine learning models leveraging Python (Scikit-learn, TensorFlow, PyTorch) to extract actionable insights from large-scale datasets, significantly improving.

- Spearheaded the integration and fine-tuning of Large Language Models (LLMs), developing Generative AI solutions and implementing Retrieval Augmented Generation (RAG) architectures.
- Proficient in utilizing AWS services, including SageMaker, EC2, and S3, for model training, deployment, and management.
- Collaborated with cross-functional teams (data engineers, data scientists, product managers) to deliver successful AI/ML projects.
- Stayed updated with the latest advancements in AI/ML technologies and research papers.
- Developed and maintained the DStv app, enhancing user experience through Kotlin migration, MVVM architecture, and Jetpack Navigation Component.
- Significantly improved unit test coverage through the implementation of JUnit tests.
- Contributed to the development of the SonyLIV app, focusing on features like VPN consent, Key Moments, and performance optimization using Perfetto and Android Profiler.

Lead Android Developer

March 2019 - March 2021

RBL Finserve (Subsidiary of Indusind Bank)

- Led the design and development of an integrated loan operating system for MSME, AHL, JLG, and Micro Lap, streamlining field officer operations.
- Successfully integrated biometric SDKs and NDKs for customer onboarding and authentication.
- Managed the entire software development life cycle, ensuring adherence to project timelines and deliverables.

Android Developer

January 2018 - March 2019

Bharat Financial Inclusion Pvt Ltd (Subsidiary of Indusind Bank)

- Developed a Customer Service Point (CSP) mobile app to facilitate digital transactions in rural India, enabling biometric-based payments and financial inclusion.
- Integrated APIs with UIDAI and banks, and leveraged Apache Tomcat services and MS SQL databases for backend operations.
- Conducted thorough requirements analysis, designed UI/UX, and ensured timely project delivery.

Android Developer

March 2016 - December 2017

Precision Biometric Ltd

- Developed the PB510 Diagnostic Tool, an Android application for capturing fingerprints using the PB510 biometric device.
- Successfully integrated the application with UIDAI, enabling the retrieval of encrypted PID data, session IDs, and other critical information.
- Demonstrated expertise in utilizing Android SDK tools and Biometric SDKs for secure and efficient biometric data processing.

RECENT PROJECTS

Novabot

April 2025 - Current

Novabot ChatBot App is a conversational AI assistant designed to help users navigate sports TV schedules and programming using natural language. It combines the power of graph databases with advanced LLMs to deliver context-aware, intelligent responses for complex queries about sports content.

- Interprets and responds to natural language queries about TV programming.
- Uses Neo4j to model rich relationships between shows, teams, channels, and schedules.
- Integrates Google Gemini 2.0 Flash for high-performance language understanding and generation.
- Employs LangChain for orchestrating AI agent behavior and generating Cypher queries.
- Frontend built with Streamlit to provide a responsive, modern user interface.

SmartFixer

August 2024 - February 2025

SmartFixer is an intelligent assistant designed to improve code quality and streamline the code review process. It integrates with CI/CD tools like SonarQube, Snyk, Postman, and JUnit to automatically aggregate logs and test results. By analyzing these inputs along with customer reviews, SmartFixer suggests context-aware code fixes directly within Pull Requests (PRs).

- Developed an intelligent tool that aggregates logs from CI/CD tools such as SonarQube, Snyk, Postman, JUnit, etc., along with customer reviews.
- Designed and implemented logic to suggest inline code fixes within Pull Requests (PRs) based on static analysis, test failures, and security scan outputs.
- Integrated learning from previous code reviews to enforce team-specific coding standards and automate fix suggestions.
- Enhanced developer productivity by automating remediation of common issues and providing contextual recommendations.

EDUCATION

AMS College of Engineering

B.Tech - Information Technology

60%

PSM Matriculation School

XII

76%

LICENSES & CERTIFICATIONS

Microsoft Certified: Azure AI Fundamentals

AI-900

Microsoft Certified: Azure AI Engineer Associate

AI-102

AWS Certified Machine Learning Engineer - Associate

MLA-C01

KEY STRENGTHS

- Strong analytical and problem-solving skills
- Excellent communication and teamwork abilities
- Ability to work independently and as part of a team
- Passion for learning new technologies and best practices
- Proven ability to deliver high-quality, user-centric applications