

<div> <div>Ali Hussain</div> <div> +91-8056195511 alihussain8999@gmail.com Chennai <div>Github</div> </div> </div>	
<div>SUMMARY</div> <div> <p>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.</p> </div>	
<div>SKILLS</div> <div> <div>Machine Learning</div> <p>Supervised Learning, Unsupervised Learning, Deep Learning, Natural Language Processing, Model Training and Evaluation, Feature Engineering</p> <div>LLMs</div> <p>Experience in fine tuning and utilization (OpenAI, Anthropic Claude, Google Gemini, Meta LLaMA) Developed advanced prompt engineering strategies to improve LLM outputs.</p> <div>Gen AI</div> <p>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.</p> <div>Cloud Platforms</div> <p>AWS (SageMaker, EMR, Glue, Bedrock, EC2, S3, Lambda, DynamoDB, CDK, SDKs), Azure (AI Services, Machine Learning, Cognitive Services), Google Cloud Platform.</p> <div>Programming Languages</div> <p>Python (Pandas, NumPy, Scikit-learn, TensorFlow/PyTorch), Java, Kotlin</p> <div>Machine Learning Libraries</div> <p>Scikit-learn, TensorFlow, PyTorch, XGBoost, Spacy, NLTK, OpenCV</p> <div>Databases</div> <p>SQL, NoSQL (MongoDB, DynamoDB), Graph DB (Neo4j Knowledge Graph)</p> <div>DevOps</div> <p>Git, Bitbucket, Jira, Confluence, Jenkins</p> <div>Tools</div> <p>Visual Studio Code, PyCharm, Android Studio, Jupyter Notebook, AWS Console, Azure AI Studio, SageMaker Studio</p> <div>Mobile Development</div> <p>Android (Java, Kotlin, Android Studio, MVVM, Jetpack Compose)</p> <div>Other</div> <p>Agile Methodologies, REST APIs, Unit Testing, CI/CD</p> </div>	
<div>WORK EXPERIENCE</div> <div>Specialist [AI Engineer]</div> <div>Tata Elxsi</div> <div> <ul style="list-style-type: none"> Designed and deployed machine learning models for real-world use cases like predictive maintenance, fraud detection, and customer churn, leveraging large-scale structured and unstructured datasets. Spearheaded the integration and fine-tuning of domain-specific LLMs (OpenAI, Gemini, Claude), incorporating RAG pipelines for enhanced contextual generation. </div>	<div>Current</div> <div>Chennai</div>

- Built agentic AI workflows using LangChain, Google ADK, and MCP Server to power autonomous business agents.
- Engineered ETL pipelines for data ingestion using AWS Glue, transformed datasets with PySpark, and managed large data lakes in S3.
- Utilized Neo4j knowledge graphs to encode domain knowledge for retrieval and semantic search in LLM-powered applications.
- Collaborated cross-functionally with data engineers and domain experts to build end-to-end ML pipelines using SageMaker, EC2, and Lambda.
- Optimized model performance through hyperparameter tuning, cross-validation, and model explainability techniques (SHAP, LIME).
- Led the AI migration of legacy rule-based systems to modern data-driven architectures across multiple verticals including media, telecom, and finance.

Senior Data Scientist

March 2019 - March 2021

RBL Finserve (Subsidiary of Indusind Bank)

- Developed an integrated AI-powered loan origination and processing platform for MSME, AHL, JLG, and Micro LAP segments.
- Implemented credit risk scoring models using historical repayment and demographic data to automate loan decisions.
- Built biometric-based KYC verification using image processing and classification models integrated with UIDAI.
- Developed dashboards using Tableau and Dash for loan analytics and fraud trend insights.
- Managed the complete MLOps lifecycle, from data acquisition to model versioning and deployment using containerized microservices.

Data Scientist

January 2018 - March 2019

Bharat Financial Inclusion Pvt Ltd (Subsidiary of Indusind Bank)

- Built scalable data pipelines for rural financial transactions involving biometric data, payments, and service history using Apache Spark and MS SQL Server.
- Integrated real-time UIDAI APIs and orchestrated backend services for rural transaction insights.
- Applied clustering algorithms to identify underserved areas and user segmentation for targeted financial services outreach.

Data Scientist

March 2016 - December 2017

Precision Biometric Ltd

- Developed the PB510 Diagnostic Tool leveraging OpenCV and TensorFlow for fingerprint quality analysis and biometric data processing.
- Engineered a biometric feature extraction pipeline from raw images and matched them with UIDAI authentication mechanisms.
- Conducted PID encryption, session handling, and secure communication to maintain biometric data privacy and compliance.

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%

ICF High School

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