

Sayed Arham Ali

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Software Engineer | Python | FastAPI | Data Structures & Algorithms | Full Stack

Summary

CS undergraduate (2027) with internship experience building full-stack systems, REST APIs, and data pipelines. Proficient in Java, C/C++, and Python with a strong foundation in DSA and OOP. Eager to contribute to scalable, high-performance software in a fast-paced engineering team.

Technical Skills

Languages: Java, C/C++, Python, JavaScript, SQL (PostgreSQL)

Frameworks/Libraries: React.js, Next.js, Node.js, Express.js, React Native, FastAPI, Flask, LangChain, Scikit-Learn, PyTorch, TensorFlow, HuggingFace Transformers, Pandas, NumPy

Databases: MongoDB, PostgreSQL, Firebase, FAISS

Tools & APIs: Git, Docker, Google Cloud Platform, Postman, REST APIs, Apache Airflow, Socket.io

Development Practices: Object-Oriented Design, Service-Oriented Architecture, Agile Development, Cross-functional Collaboration

Work Experience

Data Science & Automation Intern

December 2025 – January 2026

Indore Municipal Corporation (IMC)

Indore, India

- Designed and implemented a custom batch-inference pipeline in Python to process civic datasets exceeding provider file-size limits — enabling inference on datasets 10× larger than the upload threshold.
- Engineered a reusable, provider-agnostic pipeline abstraction supporting multiple OpenAI-compatible APIs, adopted team-wide and eliminating manual analyst bottlenecks.
- Applied object-oriented design principles to structure the pipeline for extensibility across future dataset types and API providers.

Freelance Software Developer

June 2025 – August 2025

The Falcon Capital

Indore, India

- Built a cross-platform Forex trading application using MERN stack and React Native with real-time data streaming via Socket.io, supporting 30+ concurrent users.
- Designed RESTful APIs and integrated Firebase Authentication for secure session management; delivered features iteratively across Agile sprints.

Projects

Autonomous AI Agent - Autonomous reasoning and planning agent — [\[link\]](#) - *Python, LangChain, REST APIs*

- Architected a multi-tool autonomous agent using LangChain capable of reasoning, planning, and executing multi-step tasks via custom tool integrations and persistent memory, demonstrating applied problem decomposition and algorithm design.
- Implemented a tool-calling loop that breaks complex goals into sub-tasks and invokes external APIs autonomously without human intervention.

RAG Pipeline - Document Q&A system over open-source LLMs - [\[link\]](#) - *Python, LangChain, FastAPI, HuggingFace, FAISS*

- Built an end-to-end Retrieval Augmented Generation system with chunked ingestion, SentenceTransformer embeddings, and FAISS vector search, improving retrieval efficiency by 30%.
- Exposed the pipeline as a REST API via FastAPI with an interactive Gradio UI for real-time document querying.

Click-Through Rate Predictor - Ad CTR prediction using machine learning - [\[link\]](#) - *Scikit-Learn, XGBoost, FastAPI*

- Built a CTR prediction model using Logistic Regression and Scikit-Learn on large-scale ad click datasets, performing feature engineering and hyperparameter tuning to maximize prediction accuracy.

Wisemon - Full-stack expense tracking application - [\[link\]](#) - *React.js, Node.js, Express.js, MongoDB, JWT*

- Built a MERN expense tracker with JWT authentication, RESTful CRUD API, and donut-chart spend visualizations backed by MongoDB.

Education

Renaissance University

Indore, India

Bachelor of Technology in Computer Science & Information Technology

July 2023 – April 2027

Certifications

Machine Learning A-Z

Udemy

Deep Learning with PyTorch

Coursera

Data Engineering

Astronomer