



# Mohammad Ayaan Anis Ahmad Shaikh

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Machine Learning Engineer specializing in NLP systems, Reinforcement learning and production ML deployment. Built RAG-based document intelligence systems and real-time inference pipelines using Python, PyTorch, and FastAPI. Strong foundation in vector databases, embedding models, and low-latency API design.

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## PROJECTS:

DeepTrade: Reinforcement Learning Agent for Automated Portfolio Trading | Python, PyTorch, yfinance, Matplotlib | In Development

- [GitHub](#)
- Developed reinforcement learning agent using Deep Q-Networks (DQN) with experience replay and target networks to optimize portfolio trading strategies, achieving risk-adjusted returns on Indian equity markets
- Engineered feature pipeline with 8+ technical indicators (RSI, MACD, Bollinger Bands) and implemented custom Gym environment for sequential decision-making in financial markets
- Built end-to-end ML system with PyTorch including data preprocessing, model training loop, hyperparameter tuning, and backtesting framework on 6 years of historical stock data

Insurance Document Q&A System with RAG Architecture | Python, Next.js, ChromaDB

- [GitHub](#)
- Built an end-to-end ML system using LLMs and semantic search to automate insurance claim decisions from natural language queries.
- Implemented document chunking (500-char chunks), sentence-BERT embeddings (384-dim), and ChromaDB vector search achieving 80%+ accuracy in entity extraction across 18 query formats.
- Integrated OpenAI GPT-3.5 for intelligent decision-making with explainable clause-to-decision mapping.

AI-Powered Mock Interview SaaS | Next.js, Supabase, Vapi SDK

- [Live Demo](#) | [GitHub](#)
- Built real-time voice-based AI platform simulating role-specific mock interviews with low-latency interaction
- Engineered contextual feedback system providing actionable insights to improve user communication skills
- Designed analytics dashboard tracking interview sessions and performance metrics for continuous improvement

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## EDUCATION:

Bachelor of Technology - Walchand Institute of Technology, Solapur | CGPA : 9.4 | Exp : 2027.

Secondary(12th) - Walchand College of Arts and Science, Solapur.

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## SKILLS:

AI/ML: Scikit-learn, PyTorch, TensorFlow, Sentence-BERT, NumPy, Pandas, Matplotlib, Seaborn, Reinforcement learning.

Programming: Python (Advanced), C++, Java, JavaScript, TypeScript.

Databases: MongoDB, PostgreSQL, ChromaDB.

Deployment & Tools: Flask, WSGI, Docker, Git, GitHub.

Web Technologies: React.js, Next.js, Node.js, Express.js.

Mathematics: Statistics, Linear Algebra, Probability, Calculus

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## ACHIEVEMENTS:

- Solved 350+ DSA problems across platforms like LeetCode, Coding Ninjas, Code chef with a Top 5% global ranking
- Achieved a rating of 732 on codeforces and a rating of 1041 on codechef.
- [CodeChef](#), [Codeforces](#), [Leetcode](#)

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## CERTIFICATIONS:

Forage December 2025: [British Airways Data Science Job Simulation](#)

Infosys Springboard: Machine Learning Foundation Certificate, Introduction to Data Science, Python Foundation Certificate

NPTEL: Soft Skills Development, Programming with Generative AI