# MOHAMMAD AYAAN SHAIKH

Solapur, Maharashtra • 8600301247 • ayaanskh23@gmail.com Github:https://github.com/Ayaan-Skh LinkedIn:https://www.linkedin.com/in/ayaan-skh

#### **SUMMARY**

Machine Learning Engineer with strong foundations in algorithms and software engineering, experienced in building end-to-end ML pipelines for regression and predictive modeling. Skilled in model development, hyperparameter tuning, and evaluation using Scikit-learn, with deployment experience via Flask and WSGI for production readiness. Familiar with data preprocessing, feature engineering, and experimentation workflows. Expanding expertise into Deep Learning and NLP, while leveraging prior full-stack development background to design scalable, user-focused ML applications.

## **SKILLS**

- ML/DS: Scikit-learn, NumPy, Pandas, Matplotlib, Seaborn
- Programming: Python (Advanced), C++, Java, JavaScript, TypeScript
- Databases: MongoDB, PostgreSQL
- Deployment & Tools: Flask, WSGI, Docker, Git, GitHub
- Web Tech (Secondary): React.js, Node.js, Next.js, Express.js, WebSockets

## **PROJECTS**

#### AI-Powered Mock Interview SaaS (Voice + Feedback) - Full-Stack SaaS Platform

https://neuro-chat-git-main-ayaan-shaikhs-projects-c5391979.vercel.app/

- Al Interview Companion is a real-time voice-based Al that simulates mock interviews tailored to specific roles.
- It helps users practice behavioral and technical questions in a realistic setting.
- The AI gives honest, contextual feedback to improve confidence and communication. Built with Next.js, Supabase, Clerk, and Vapi SDK for smooth voice interaction.
- All sessions are tracked and stored, allowing users to revisit and reflect. A smart, scalable tool to level up interview prep from home.

## Structured ML Pipeline for Student Performance Prediction.

- Built a student marks prediction model using supervised learning with a fully structured ML pipeline.
- Designed modular components for data ingestion, preprocessing, feature engineering, and training.
- Performed hyperparameter tuning and compared multiple models, achieving an R<sup>2</sup> score of 8.88.
- Deployed the model using Flask + WSGI, making it scalable and production-ready.
- Focused on robust engineering practices (reproducibility, maintainability, clean pipeline design).
- Tech Stack: Python, scikit-learn, NumPy, pandas, matplotlib, seaborn, Flask

### <u>Unsupervised Anomaly Detection System for Financial Transactions</u>

- Built an unsupervised anomaly detection system for financial transactions using Python, scikit-learn, NumPy, pandas, and matplotlib.
- Implemented Isolation Forest, DBSCAN, and One-Class SVM, achieving 86% recall (ROC-AUC 0.83) with DBSCAN on highly imbalanced data.

- Engineered a reusable ML pipeline (scaling, anomaly scoring, evaluation) for application to other anomaly detection problems (cybersecurity, healthcare, IoT).
- Engineered preprocessing pipeline (StandardScaler, PCA) and deployed the best model via a Flask REST API for real-time anomaly scoring.
- Tech Stack: Python, scikit-learn, NumPy, pandas, matplotlib, seaborn, Flask

## **EDUCATION**

**B-Tech in Computer Science and Engineering** | WIT, Solapur University | 2023 - 2027

CGPA: 9.4

HSC 12th | Walchand College of Arts and Science, Solapur | 2023

Percentage: 78.6%

SSC 10th | Little Flower Convent High School, Solapur | 2021

Percentage: 88%

## **ACHIVEMENTS**

 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.
- Consistently improving problem-solving speed and accuracy in real-time competitive environments

# **CERTIFICATIONS**

• Infosys Springboard:

Python Foundation Certificate

• Infosys Springboard: Introduction to Data Science

• NPTEL:

Soft Skills Development