

MAYUR GIRI

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SUMMARY

AI/ML Engineer & Full-Stack Developer with experience building scalable machine learning pipelines, backend systems, and full-stack applications. Skilled in Python, Flask, TensorFlow, Scikit-learn, React, SQL/NoSQL databases, and cloud platforms. Strong in model training, optimization, data preprocessing, API development, and deploying AI solutions. Seeking opportunities to contribute to ML engineering, backend development, and full-stack product development.

VIRTUAL PROGRAMS WORK EXPERIENCE

Accenture – Developer & Technology Virtual Experience **May 2024 - Jul 2024**

- Completed modules in debugging, Agile workflows, SDLC, and DevOps-aligned engineering tasks.

Tata Group – Cybersecurity Analyst Virtual Experience **Feb 2024 - Apr 2024**

- Practiced simulated IAM, security analysis, and risk evaluation tasks.

PROJECT EXPERIENCE

AI-Based Insider Threat Detection System [view](#) **Backend & ML Engineer | Jun 2025 – Present**

- Developed scalable backend pipelines for log ingestion, preprocessing, and feature extraction.
- Implemented ML models for anomaly detection using Isolation Forest, Autoencoders, and LSTM networks.
- Designed and deployed Flask REST APIs for inference, anomaly scoring, alerting, and data visualization.
- Integrated backend with a React + Tailwind dashboard for real-time monitoring.
- Optimized model latency and improved system performance with database tuning and pipeline enhancements.

Tech: Python, Flask, Scikit-learn, TensorFlow, PostgreSQL, MongoDB, React, Tailwind

AI-Based Medical Diagnostics System **Backend & ML Engineer | Jan 2024**

- Built a CNN-based medical imaging classifier with optimized preprocessing and inference.
- Developed backend and frontend for real-time uploads and diagnostic predictions.
- Designed model evaluation workflows for accuracy benchmarking.

Tech: TensorFlow, Keras, OpenCV, Flask, React

Driver Fatigue Detection System

Backend & ML Engineer | Jun 2024

- Created real-time fatigue detection using facial landmarks, eye tracking, and head pose estimation.
- Engineered CV pipeline for stable detection under varied lighting and environmental conditions.
- Built alert-triggering mechanisms for road safety applications.

Tech: Python, OpenCV, Dlib, TensorFlow

Additional Projects

- Speech Transcription System – Converts video speech to text using STT models.
- Personalized Diet Recommendation System – AI + Flask + React, dynamic plan generation.
- Chit-Chat App – Real-time messaging using MongoDB + Express. [view](#)

EDUCATION

Bachelor of Engineering – Artificial Intelligence & Data Science

2022 - 2026

University of Mumbai

- Specialization in Advanced AI.
- Thesis on "Innovations in Artificial Intelligence and Machine Learning".
- CGPA: 7.0/10
- Focus: AI, ML, DL, NLP, Computer Vision

ADDITIONAL INFORMATION

Core Skills

- **Machine Learning & AI:** Supervised/Unsupervised Learning, Deep Learning, Anomaly Detection, Autoencoders, LSTM, CNNs, NLP, Computer Vision, Model Evaluation, Feature Engineering
- **Frameworks & Libraries:** TensorFlow, Keras, Scikit-learn, OpenCV, NumPy, Pandas
- **Backend Development:** Python, Flask, REST APIs, Authentication, Logging, Microservices, Data Pipelines
- **Frontend Development:** React.js, Next.js, Tailwind CSS
- **Databases:** PostgreSQL, MongoDB, Firebase
- **Cloud & DevOps:** Azure ML, Google Cloud, Git, Deployment Workflows
- **Other:** Debugging, Optimization, Version Control, Documentation, Collaboration

Languages: English, Hindi, Marathi

Certifications:

- IBM Cloud Computing Fundamentals [view](#)
- Microsoft Azure ML Pipelines
- Google Cloud ML APIs & Infrastructure [view](#)
- Google Cloud Arcade Facilitator Program [view](#)