Roshan A Rauof

Aspiring AI/ML Engineer

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B.Tech CSE (AIML) student graduating June 2026 with experience building anomaly detection pipelines, speech processing systems, and demand forecasting models. Comfortable working across the full ML lifecycle; feature engineering, model training, evaluation, and cloud deployment.

SKILLS

Programming: Python • Java • C++ • SQL • JavaScript • HTML/CSS

AI/ML: Machine Learning • Deep Learning • Reinforcement Learning • NLP • Speech Processing • Computer Vision • Anomaly Detection • Time-Series Forecasting • Feature Engineering • Generative AI • XAI

Frameworks: PyTorch • Scikit-learn • Pandas • NumPy • Matplotlib • Whisper • Streamlit • Gradio

Cloud & Tools: AWS • Azure • OCI • Git • PostgreSQL • DynamoDB

PROJECTS

PIRS — Predictive Insider Risk & Stabilization System (2026) | **GitHub**

Python, Scikit-learn, PyTorch, Reinforcement Learning (Q-Learning)

- Achieved ROC-AUC **0.8554** by building a 9-layer prediction pipeline using Isolation Forest, LSTM Autoencoder, and One-Class SVM on **1.3M user-day records** (CERT r6.2 dataset)
- Detected **3 of 5** real insider threats **3–14 days before attack** by modelling per-user behavioural drift across 4,000 employees over 515 days
- Improved prevention quality by **15%** over generic alerts by matching interventions to personality profiles using Q-learning optimisation
- Validated cross-dataset generalizability on LANL (12,416 users, 69 GB auth logs) achieving ROC-AUC **0.7429**

StoryWeaver — AI-Powered Speech Therapy Platform (2025) | **GitHub**

Python, Streamlit, OpenAI Whisper, Google Gemini 2.5 Flash, gTTS, NLP

- Achieved **88%** transcription accuracy on children's speech by integrating OpenAI Whisper ASR optimised for Indian-accented English across ages 4–6
- Detected grammar, vocabulary, and articulation errors with **85–91%** accuracy by building a multi-error NLP pipeline using Google Gemini 2.5 Flash
- Improved pronunciation by **15%** over 6 sessions by generating personalised practice stories that embed each child's detected error words

PROFESSIONAL EXPERIENCE

Fynn Labs — Remote
Machine Learning & Data Science Intern — *Jul 2025 – Sep 2025*

- Built an ML-driven inventory optimization platform for small grocery stores, achieving **87.3%** demand forecasting accuracy and **25–40%** waste reduction
- Applied Random Forest models, time-series feature engineering, and market segmentation to automate reordering and pricing decisions informed by financial modelling

EDUCATION

Vellore Institute of Technology (VIT) — Chennai, India
B.Tech CSE — Specialization in AI & Machine Learning — *Jul 2022 – Jun 2026*

CERTIFICATIONS

- Microsoft Certified: **Azure AI Fundamentals** | 2024
- Microsoft Certified: **Azure Data Fundamentals** | 2024
- Tata Group — **Data Analytics Job Simulation** (Forage) | 2025
- AWS APAC — **Solutions Architecture Job Simulation** (Forage) | 2025