DIYA MATANI

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EDUCATION

Vellore Institute of Technology   2022 – 2026
B.Tech in Computer Science and Engineering – CGPA: 8.87

SKILLS

Languages: Python, SQL
AI / ML: Machine Learning, Feature Engineering, Model Training & Evaluation, Explainable AI
GenAI: Google Gemini Pro API, Prompt Engineering, AI-driven Recommendations
Libraries: Scikit-learn, LightGBM, Pandas, NumPy, SciPy
Backend & Deployment: Flask, Streamlit
Data Engineering: ETL Pipelines, Data Cleaning, Data Validation
Databases & Tools: PostgreSQL, MySQL, Git, GitHub, VS Code

EXPERIENCE

BLG Technologies (P) LTD   Dec 2024 – Mar 2025
AI / Python Intern
- Built Python ETL pipelines for financial data transformation, reducing manual reconciliation by 40%.
- Designed PostgreSQL schemas for AI-driven analytics and developed Flask-based backend services.
- Converted raw operational data into ML-ready datasets for predictive modeling.

PROJECTS

Engine Rating Prediction   GitHub | Live
Python — Streamlit — LightGBM — Scikit-Learn

- Developed an end-to-end machine learning system using LightGBM to predict vehicle engine health from 60+ real-world parameters ($R^2 = 0.7$).
- Performed feature engineering, model tuning, and evaluation to ensure reliable and production-ready predictions.
- Deployed the model using Streamlit for real-time inference, enabling proactive maintenance decisions.

Energy Insight   GitHub | Live
Python — Streamlit — Scikit-learn — Google Gemini Pro API

- Built an AI-based energy optimization system using Random Forest to predict heating and cooling loads from building geometry and sensor data.
- Integrated Generative AI (Google Gemini Pro) to convert ML predictions into human-readable energy-saving recommendations.
- Designed the system to bridge the gap between AI outputs and real user decisions, improving energy efficiency insights.

Marketing Campaign Performance Analytics   GitHub | Live
Python — Streamlit — Scikit-learn — Statistical Testing

- Applied machine learning and statistical testing to analyze 64,000+ customer records for real-world marketing optimization.
- Built Logistic Regression models to predict conversion probability and guide data-driven decision-making.
- Validated model insights using A/B testing (Chi-Square, T-Test) to ensure business reliability.

ACHIEVEMENTS

Selected for 2nd round of HackOn With Amazon, CodeHer'25 Hackathon

Limca Book of Records & Indian Book of Records: Recognized nationally for exceptional mental arithmetic skills at Trendz Abacus.

Runner Up – Project Expo: Secured Top 10 position at Industry Conclave VITB 2024.

500+ Problems Solved: LeetCode, GeeksforGeeks – Strong problem-solving skills in DSA and OOP.

Certifications: Applied Machine Learning in Python (Coursera), Cloud Computing (NPTEL).

POSITION OF RESPONSIBILITY

Pahal Kids Classes – Conducted and organized classes and activities for workers' children, enhancing communication and leadership skills.

Technical Member at Google Developer Groups – Contributing to technical initiatives and community development.