VIMAL SEKAR

GitHub | LinkedIn | vimalsekar37@gmail.com | +91 9894628832
Chennai, Tamil Nadu

SUMMARY

AI/ML Developer skilled in Python, SQL, machine learning, NLP, data analysis, and REST API development. Experienced in building AI projects for deepfake detection, fairness auditing, and stock prediction. Published IEEE research papers on deep learning and time-series forecasting. Eager to bring strong analytical and programming foundations to a data-driven team.

TECHNICAL SKILLS

Programming Languages & Databases: Python, OOP, MySQL.

Tools: Git, GitHub, Postman, Jupyter Notebook, VS Code, MySQL Workbench, Microsoft Excel, Google Colab, PyCharm.

Core Competencies: RESTful API Design, CRUD Architecture, SDLC, Data Analysis and Interpretation, Networking.

Applied AI / ML: LSTM Neural Networks, EDA, NumPy, Pandas, Matplotlib, Seaborn, Scikit-learn, ML, NLP, Time-Series Forecasting, Data processing, Data Analysis and Interpretation.

Soft Skills: Analytical Thinking, Problem Solving, Communication, Attention to Detail.

PROJECTS

Truth Lens AI | Deepfake and Misinformation Detection *Github*

- Built an AI powered verification platform supporting 3 content types and 7+ media formats, allowing users to analyse images, videos, and news articles through one centralized system.
- Combined 5+ detection techniques, including metadata inspection, recompression analysis, frame sampling, NLP, and trained model predictions, to generate authenticity scores with supporting evidence and uncertainty indicators.

Loan Bias Auditor | AI Fairness and Explainability *Github*

- Built an AI auditing system that evaluates loan approval models across 4+ demographic groups, helping identify unfair differences based on gender, age, income, and employment status.
- Implemented 5+ fairness and explainability metrics, including approval-rate difference, demographic parity, equal opportunity, feature importance, and SHAP analysis, with visual reports and bias alerts.

Stock Market Analysis and Prediction using LSTM | Time-Series Forecasting *Github*

- Performed exploratory data analysis on 1+ years of historical stock data (AAPL, GOOG, MSFT, AMZN) using Python, Pandas, and NumPy, analyzing moving averages, daily returns, and cross-stock correlation to uncover trend and risk patterns.
- Built and trained a 2-layer stacked LSTM neural network on a 60-day lookback window of MinMax-scaled closing prices, using a 95/5 train-test split to forecast next-day stock price trends.

EDUCATION

Kalasalingam Academy of Research and Education, Krishnankoil, Tamil Nadu *2022 - 2026*
Bachelor of Technology in Information Technology, CGPA: 7.16 / 10

ACHIEVEMENTS

- An Explainable and Uncertainty-Aware Deep Learning Framework for Histopathological Breast Cancer Detection - Published in IEEE Xplore, *Link* *Mar 2026*