Akshata Anupkumar Miramir

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Online Portfolio: Akshata1712.github.io

Objective

Final-year Computer Science Engineering undergraduate with a strong foundation in machine learning, data analytics, and computational methods. Focused on applying AI/ML-driven approaches to financial modeling, risk assessment, and investment analytics. My goal is to merge technical expertise with financial insight to develop intelligent systems that enhance decision-making and innovation in the modern financial industry.

Education

JNTU Hyderabad, B.Tech in Computer Science and Engineering — Nov 2022 – May 2026

- CGPA: 7.98 / 10

FIITJEE Junior College - Intermediate (Class XII), State Board, Telangana — 2020 – 2022

- Percentage: 93.9%

Class X, Sanghamitra School (CBSE) — 2019 – 2020

- Percentage: 93%

Relevant Coursework

Quantitative & Computational Core: Matrices and Calculus, Ordinary Differential Equations and Vector Calculus, Computer Orientation Statistical Methods, Discrete Mathematics, Python Programming, Machine Learning, Artificial Intelligence.

Financial & Economic Core: Financial Analysis, Business Economics.

Experience

Machine Learning Intern, Plasmid (Remote) — Oct 2024 – Dec 2024

- Developed a data-driven fraud detection system with an interactive platform for transaction analysis.
- The system provided real-time flagging, statistical overviews, and feature influence ranking to determine factors driving transaction risk.

Research Intern, JNTUH – Federated Machine Learning — Jan 2025 – Present

- Conducted research on Federated Learning for decentralized finance, achieving 98% accuracy in homogeneous and 96% in select heterogeneous settings.
- Utilized advanced techniques like Knowledge Distillation and Capacity Aggregation to optimize model convergence and stability.

Research Intern - AI/ML in IoT, IIIT Hyderabad — Aug 2025 – Oct 2025

- Applied AI/ML for IoT projects at Signal Processing and Communication Research Centre (SPCRC), focusing on intelligent sensing and real-time data analysis.
- Developed custom CNN models to process raw image data, achieving high accuracy for water level detection.
- Applied Image Processing techniques on a dataset to create a virtual scale for automated water level detection and monitoring.

Intern, Launch Girls (Remote) — Sep 2022 – Nov 2022

- Worked with the Programming and Curriculum team to develop a new entrepreneurial education module.
- Conducted research and compiled pedagogical strategies and tools, and supported outreach materials.

Coordinator, Street Cause – JNTUH Jul 2023 – Dec 2024

- Organized community initiatives, donation drives, and secured event sponsorships.
- Managed volunteers and helped implement large-scale social impact events across the campus.

Projects

Online Payment Fraud Detection Platform (GitHub) 2024

- Designed a fraud detection system using anomaly detection + supervised ML.
- Built front-end in React, back-end with Flask + scikit-learn integration.

Sentiment Analysis for stock prediction (GitHub) 2025

- Engineered a hybrid forecasting model for stock prices, integrating Deep Learning (LSTM) with real-time NLP Sentiment Analysis from financial news (Yahoo Finance/NewsAPI) to simulate and quantify investor mood impact on market prediction.

Stock Price Prediction (ML) 2023

- Built ML models (RF, XGBoost) for price prediction using financial indicators.
- Performed feature engineering and visualized trends using matplotlib/seaborn.

Water Monitoring - CNN-based (GitHub) 2025

- Developed a CNN in PyTorch to predict water levels from image data
- Experimented with different pretrained models and built an end-to-end pipeline.

Leadership & Programs

Vice President, ICE Club – JNTUH 2024 – 2025

- Managed events, finances, and student startup mentoring activities.
- Oversaw the conversion of the club into an officially recognized E-Cell, driving a 200%+ increase in member engagement through targeted fintech and ML-based workshops and hackathons.

Summer School on CV & AI, IIIT Hyderabad Jul 2024

- Attended sessions on advanced CV and ML topics by global researchers.
- Hands-on mini projects using PyTorch and computer vision datasets.

Certifications

- Fundamentals of Finance — University of Pennsylvania (Coursera)
- Data Analysis with Python — IBM (Coursera)
- Foundations of Modern Machine Learning (3 semester course) — IIIT-H
- Programming for Everybody — University of Michigan
- Python and Statistics for Financial Analysis — The Hong Kong University of Science and Technology (Coursera)
- Introduction to Financial Planning and Wealth Management — (Coursera)

Skills

Languages: Python, C, SQL
Libraries/Tools: NumPy, Pandas, scikit-learn, PyTorch Selenium, Git
Other: Financial Analysis, Time-Series Analysis, Basic Financial Modeling (Excel), Jupyter, VS Code.
Learning: MATLAB, Bloomberg Terminal

FinTech Blog : @TheDataDrivenDollar

TheDataDrivenDollar (Medium Blog): A dedicated platform for breaking down Machine Learning and Deep Learning applications in finance.

I analyze and explain complex concepts such as using LSTMs for time-series forecasting, leveraging Graph Neural Networks (GNNs) for asset-relationship modeling in Portfolio Optimization, and applying Explainable AI (XAI) techniques to ensure transparency in financial risk models.