Samyuktha MA

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PROFESSIONAL SUMMARY

AI & Data Analytics undergraduate with strong foundations in ML, data analysis, explainable AI, and production-oriented AI systems, with hands-on experience in ML validation, feature engineering, dashboards, prompt engineering, and FinTech-style analytics.

TECHNICAL SKILLS

Programming & Analytics: Python, SQL (MS SQL Server), Advanced Excel, SPSS
Machine Learning & AI: Supervised & Unsupervised Learning, Feature Engineering, Model Validation, Neural Networks, Random Forest, SVM, KNN, Generative AI
Prompt Engineering & LLMs: System prompt design, structured AI outputs, risk-aware prompting, explainability-focused prompts, conversational AI workflows
Data Visualization & BI: Power BI, Interactive Dashboards, Data Cleaning & Transformation
Web & UI Technologies: HTML, CSS, React (Functional Components), TypeScript, Tailwind CSS
Automation & Testing: Selenium WebDriver
Tools & Platforms: Power BI Service, Jupyter Notebook, Vite, GitHub Pages

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INTERNSHIP EXPERIENCE

Testing Analyst Intern – Nokia Networks & Solutions | *July 2025 – Aug 2025*
Validated ML datasets and model outputs across telecom analytics pipelines. Executed test cases, documented defects, and collaborated with engineers to improve data quality and model consistency.

Production Planner & Industrial Operations Intern – Alstom Transport India | *May 2025 – June 2025*
Analyzed production and operational datasets to support data-driven process optimization. Conducted time studies and assisted in performance reporting for manufacturing workflows.

PROJECTS

Nova Spark – FinTech AI Market Intelligence Platform
•   Built an AI-powered FinTech SPA with a ChatGPT-style conversational assistant delivering explainable, risk-aware market analysis and simulated trade forecasting using technical indicators (RSI, MACD, EMA), React 19, TypeScript, Tailwind CSS, Recharts, and Google Gemini.

- Designed responsive financial dashboards (Market Pulse, Portfolio Insights, Trade Forecaster) with mobile-first UX, modular component architecture, structured AI outputs, and production-style integration patterns deployed via Vite and GitHub Pages.

Remote Factory Digital Twin (Ongoing)
- Developing a smart factory Digital Twin using large-scale IoT sensor data (1.5M+ records), includingautomated data cleaning, leakage-aware feature engineering (rolling statistics, health indicators), and scalable Parquet-based model-ready datasets using Python.
- Implementing an initial predictive maintenance pipeline with time-aware Remaining Useful Life (RUL)modeling and integrating analytics into Power BI dashboards for condition monitoring.

Music Album Popularity Prediction – ML Research Series
- Compared multiple ML models (LR, KNN, SVM, Random Forest, ANN, CatBoost, GNN) with statisticalevaluation using SPSS.

RESEARCH & PUBLICATIONS

Forecasting Importance-Based Sedentary Lifestyles Monitoring – Feedforward Neural Networks vs Random Forest
UAE International Conference on Multidisciplinary Research and Innovation, 2024

EDUCATION

B.Sc. Artificial Intelligence – Saveetha University, Chennai CGPA: 8.6 | 2023
– 2026

CERTIFICATIONS & ACHIEVEMENTS

Introduction to Data Analytics Using Microsoft Power BI – Alison (2025)
IBM: AI Ethics, Fundamentals & Applications
Published International AI Research Paper (2024)