Dany Binu Luke

Kollam, India   danybinu2005@gmail.com   +918590087085   danybinuluke   LeetCode   Codeforces   Portfolio

Education

Bachelor of Technology, Computer Science and Engineering *Aug 2023 – Present*
National Institute of Technology, Surat

High School Diploma *Apr 2009 – Mar 2023*
United Indian School, Kuwait

Projects

MicroState - Real-Time Market Microstructure Analytics System *Technology Stack: Python, FastAPI, React, Vite, Supabase, Docker*

- Built a real-time system reconstructing Level-2 limit order books with event-driven microstructure analysis at 1-second latency on streaming cryptocurrency data and implemented multi-timescale ML architecture separating order-flow pressure (1-5s) from price context (15-30m) using supervised learning and deterministic signal aggregation.
- Developed full-stack dashboard with React and FastAPI featuring WebSocket streaming, Google OAuth authentication, and real-time visualization of predictions and market metrics.
- Containerized system with Docker for reproducible deployment with stateless API layer and stateful core engine for low-latency inference.

SentiStock AI - Stock Sentiment Analysis and Prediction *Technology Stack: Python, NLP, Machine Learning*

- Developed a machine learning-driven system to analyze financial news sentiment and predict stock market trends.
- Integrated Natural Language Processing (NLP) and machine learning models to derive insights from financial news and forecast market movements.

Vaani - A Speech-to-Text Summarizer *Technology Stack: Torch & Transformers, Librosa, Gradio*

- Developed an AI-powered tool that integrates Automatic Speech Recognition (ASR), Translation, and Summarization for Indian language audio files.
- Currently supports Hindi, with Malayalam support in development.
- Provides transcriptions, translations, and summaries through an interactive web interface.

Skills

Programming Languages: Python, C, C++, Java, JavaScript, MySQL

CS Fundamentals: Object-Oriented Programming, Database Management System, Data Structures, Computer Networks, Operating Systems

Tools/Frameworks: HTML5, CSS, PyTorch, HuggingFace Transformers, NumPy, Pandas, NLP, MERN (MongoDB, ExpressJS, ReactJS, NodeJS), NextJs, Framer Motion

Additional Skills: Teamwork and Project Management, Effective written and verbal communication.

Courses

Google Cloud Study Jams *Google Cloud*

- Gained hands-on experience with key Google Cloud services including Compute, Storage, API Gateway, Looker, Dataplex, Pub/Sub, and Networking.

○ Developed skills in AI/ML, using Vertex AI for prompt design, and created GenAI apps with Gemini and Streamlit.

Privacy and Security in Online Social Media *NPTEL*

○ Completed the NPTEL course Privacy and Security in Online Social Media (PSOSM) under Prof. Ponnurangam Kumaraguru, gaining practical understanding of online privacy risks, social media security threats, phishing and social engineering attacks, and ethical data usage.