



CODECELL-CMPN, VESIT

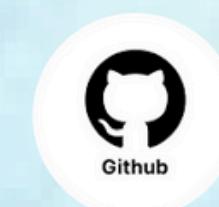
SIRIUS HACKATHON 2025

Category Code: C5

Problem Statement Title: Investment & Stock Market Insights

Team Name: Byte_Me

Institute Name: Vivekanand Education Society's Institute of Technology



Idea / Approach details



Problem Statement: Integration of structured financial data with unstructured data (social media, news, geopolitical events). Use of generative AI to synthesize diverse data into actionable, predictive investment insights

Solution: An intelligent AI agent that analyzes global market sentiments, geopolitical events, cross-asset correlations, economic indicators and also provide personalised trading insights

Target Audience: Highlight that the tool is designed for investors and financial analysts who need actionable insights beyond conventional analysis.



Implemented Features



Multimodal Sentiment Analysis: Aggregates sentiment from financial news, social media, and expert opinions.

RAG for Personalized Insights: Uses Retrieval-Augmented Generation to offer tailored stock recommendations based on a user's asset portfolio.

Geopolitical Risk Assessment: Monitors global events and policy changes.

Cross-Asset Correlation Insights: Analyzes interdependencies across various assets.

Adaptive Economic Indicator Tracking: Integrates real-time macroeconomic data.

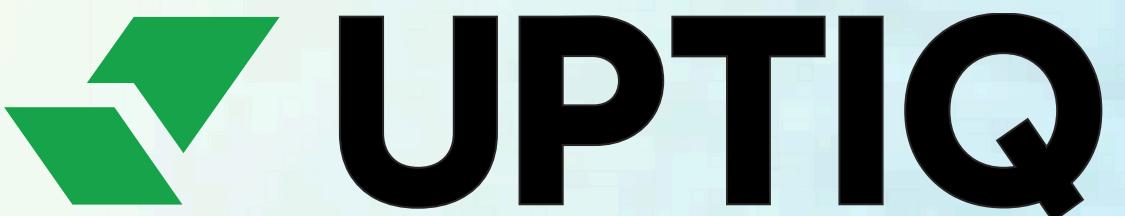


Innovation & Technologies Used

- **Innovation:** Emphasize the transformation of complex market data into actionable insights, now enhanced with personalized advice through RAG.

Technologies: Frontend/Backend: MERN stack

AI/Data Integration: UPTIQ Console



RAG: Highlight the integration of RAG for generating custom insights based on user-provided portfolio data.



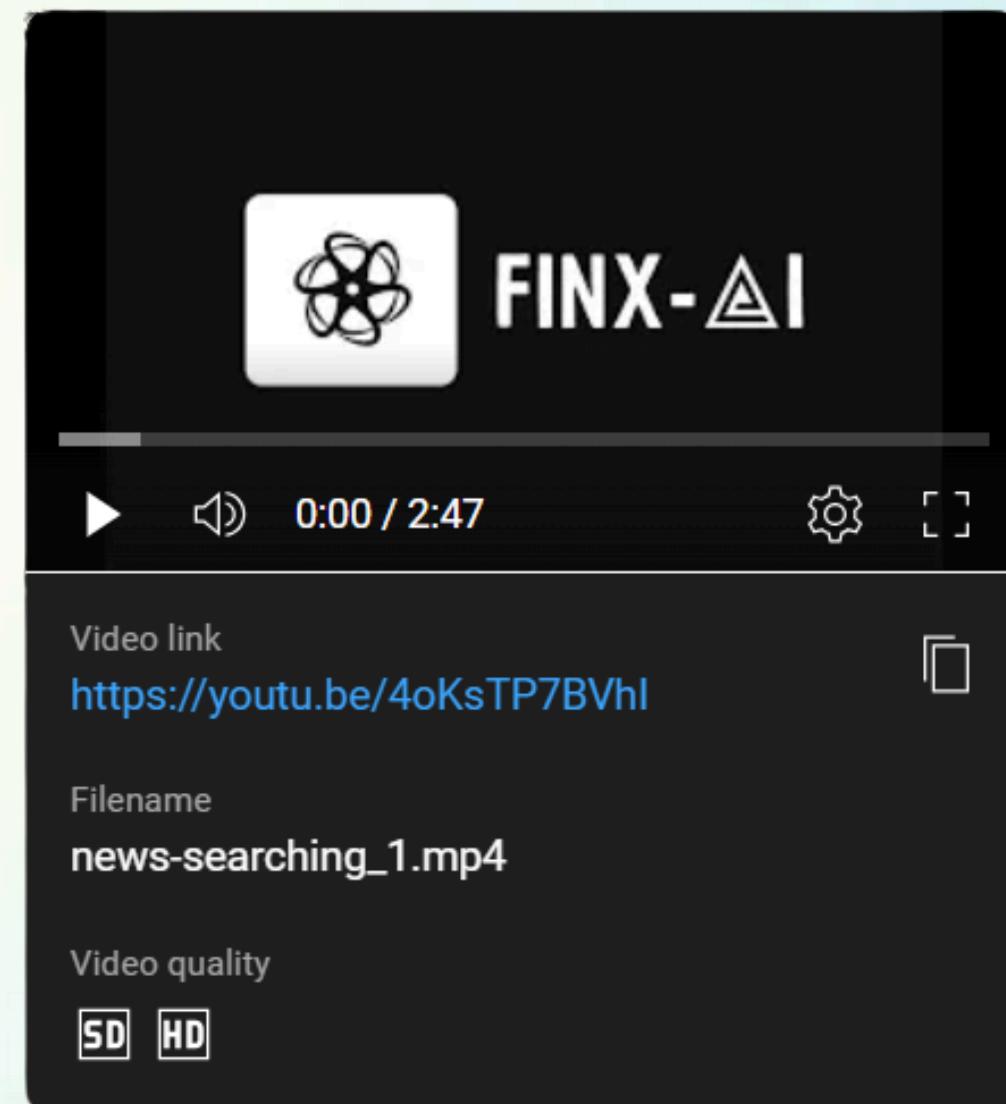
Flow Diagram / Architecture

Overall Work Flow:

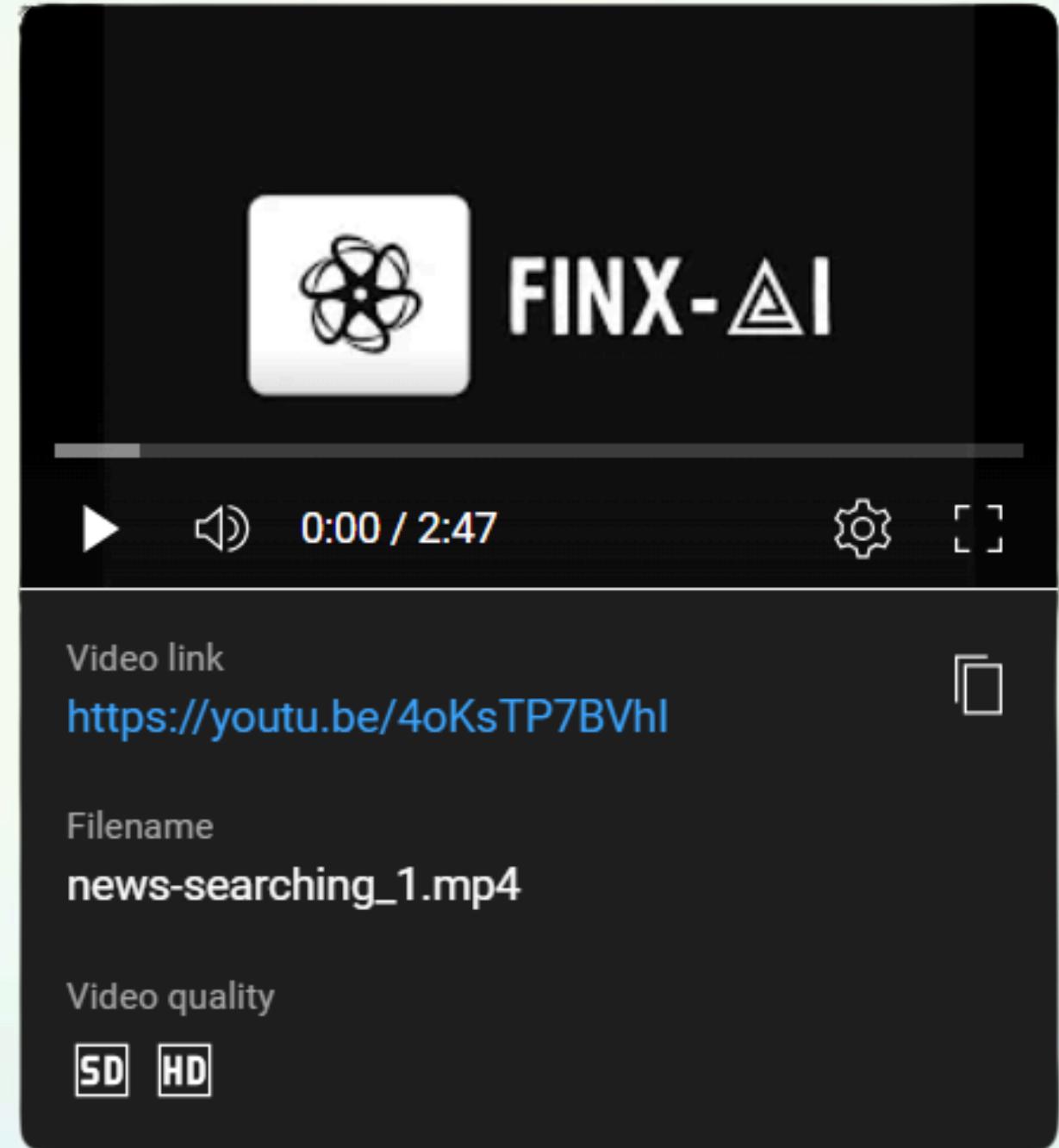


Demo Video Link

- [FinX AI || Syrus Hackathon || C-5
|| Investment and Stock insights](#)



Demo Video Link



Future Objectives

- **Advanced RAG Enhancements** – Improving Retrieval-Augmented Generation (RAG) models for better accuracy, context understanding, and real-time data processing.
- **Deep Learning for Portfolio Optimization** – Using deep learning models to analyze market trends and optimize asset allocation for maximum returns.
- **Expansion into Alternative Investments** – Exploring non-traditional assets like crypto, private equity, and commodities to diversify investment portfolios.
- **Automated AI-Driven Trading Strategies** – Leveraging AI and machine learning to develop and execute real-time trading strategies with minimal human intervention.
- **Multi-Region Market Intelligence** – Gathering and analyzing financial data across global markets to identify trends, risks, and opportunities for strategic investment decisions.