

Tejaswi Mahadev

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EDUCATION

Malla Reddy University

Bachelor of Technology in Computer Science Engineering , Specialization in AIML

Hyderabad , Telangana

Sep. 2022 - Present

Sri Chaitanya Junior College

Intermediate

Hyderabad , Telangana

Apr. 2020 - May 2022

EXPERIENCE

Machine Learning Research Assistant

Dr.Jnan Yalla

Jul 2024 - Sep 2024

IIT , Hyderabad

- Conducted academic literature reviews and researched classical and quantum optimization techniques for financial portfolio management using a 10-year dataset of 10 stock tickers.
- Achieved a Sharpe Ratio of 0.97585, expected returns of 0.30532, and minimized volatility to 0.17829 using quantum methods.
- Benchmarked performance, finding classical methods outperformed quantum in 84 percent of cases for small datasets, while quantum excelled in complex portfolio optimization.

PROJECTS

ShowShuffle | *Python, Advanced Machine Learning, Collaborative Filtering*

- * Developed a hybrid recommendation system combining collaborative filtering, content-based filtering, and matrix factorization.
- * Achieved 85% accuracy using Scikit-learn and Surprise libraries.
- * Built an interactive Streamlit-based UI for personalized recommendations.

CURA | *Python, Generative AI, Healthcare AI*

- * Developed an AI-powered healthcare chatbot using generative AI for symptom-based diagnosis, medication suggestions, and doctor recommendations.
- * Enhanced response accuracy by leveraging advanced LLMs for medical consultations.

SWIFT | *Python, Machine Learning*

- * Built a predictive budgeting tool using ML models (SVR, Linear Regression)
- * Improved budget forecasting accuracy by 18% compared to traditional models.
- * Employed Matplotlib and Plotly for dynamic visualization of spending trends.

CSV Enrichment Tool | *AI, Data Processing*

- * Automated web-based entity searches to enrich CSV datasets with APIs like SerpAPI and Gemini.
- * Created a customizable query interface for targeted enrichment based on column data.
- * Developed an interactive Streamlit dashboard, reducing manual efforts by over 80% .

Telegram AI Agent | *Python, Generative AI, Telegram Bot*

- * Developed a Telegram AI agent powered by Google Generative AI, handling over 1,000+ queries with natural language processing.
- * Integrated MongoDB for storing chat history and user interactions, improving response personalization.
- * Implemented image processing , allowing users to send and receive AI-generated insights on images.

TECHNICAL SKILLS

Languages: Python , Javascript , Java , C / C++ , SQL

Frameworks: React, Node.js, Flask, WordPress,Streamlit, FastAPI, Langchain

Developer Tools: Git,Github, Google Cloud Platform, VS Code,Vercel , Docker

Libraries: pandas, NumPy, Matplotlib , plotly , seaborn, google generative AI

Soft Skills: Collaboration, Research, Problem-Solving, Communication, Adaptability