Bhavya Pratap Singh Tomar

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EDUCATION

Madhav Instute of Technology and Science

Gwalior, MP

Bachelor of Technology in Artificial Intelligence and Machine Learning

May 2022 - Present

EXPERIENCE

AI Development Intern

Nov 2024 – Jan 2025

Seequenze Technologies

 $Noida.\ U.P.$

- Engineered an advanced LLM-based code refactoring system handling 200K+ tokens, utilizing custom prompt engineering and AST-level analysis to bypass context window limits while preserving context integrity across multiple output formats.
- Developed an intelligent code transformation pipeline using advanced prompting techniques to convert static layouts into responsive designs and inline CSS to Tailwind CSS, serving 1,000+ business clients.
- Developed a robust FastAPI backend supporting 10K+ concurrent users for LLM-based code refactoring.

Artificial Intelligence Intern

Sept 2024 - Nov 2024

FoodNEST(S)

Lucknow, U.P.

- Devised and deployed a custom in-house multilingual, multimodal AI chatbot, automating order processing for 2M+ stakeholders in the food delivery supply chain, cutting manual management by 40%.
- Developed a proprietary multilingual architecture that outperforms existing models, responding effectively in 22+ Indic languages.
- Architected distributed web/map/video scrapers using Python and Docker on EC2, enabling automated data collection from e-commerce platforms with 99.9% uptime and 30% cost reduction.
- Built a scalable RAG application with LlamaIndex, implementing custom indexing, chunking, and routing utilizing chain of prompting strategies to support 500K+ clients.

Event Coordinator

Jan 2024 – Present

Developers

Hyderabad, Telangana, India

- Coordinated online webinars, boosting community engagement by 78% through targeted email marketing.
- Established efficient pipelines to ensure seamless event execution.

Projects

YouStock | Python, Streamlit, Prophet, pandas, numpy, transformers, matplotlib, plotly, replicate, cufflinks.

- Developed trading strategies and evaluated market dynamics, improving existing solutions and insights by 20%.
- Integrated sentiment analysis with financial metrics, increasing precision by 10%.
- Analyzed and backtested quarterly earnings, boosting latency by 27%.
- Developed personalized investment insights system using data-driven strategies.

Abstractive Gen AI Q&A Bot | Flax, Pinecone, ELI5, BART, Python

- Developed a Q&A system with the ELI5 BART model, increasing answer accuracy by 30%.
- Integrated Pinecone for vector storage, reducing query latency significantly from 500ms to 50ms.
- Implemented Flax sentence embeddings, enhancing retrieval efficiency by 40% using 10 thousand pairs.

Project Narmadae | Pandas, scikit-learn, joblib, Flask, Flask-APScheduler, pulp, psycopg2-binary, requests

- Detected anomalies and predicted leaks in water usage patterns.
- Achieved 84% F1 score for leak detection using Isolation Factor, One-Class SVM, and Local Outlier Factor.
- Used PyCaret for water demand forecasting with 89% accuracy.

TECHNICAL SKILLS

Languages: Python, C++, JavaScript, SQL

Developer Tools: TensorFlow, PyTorch, Hugging Face Transformers, LangChain, Flask, FastAPI, Docker, AWS, GCP Techniques and Concepts: Data Analysis, Time Series Analysis, Deep Learning (CNN, RNN, LSTM, GANs), NLP, NMT, LLM, MLM, Text Generation, Prompt Engineering, Sentiment Analysis, LLaMA & OpenAI Fine-tuning

Data Science Libraries: NLTK, NumPy, pandas, Matplotlib, Seaborn, Scikit-learn

Certificates: Coursera: Machine Learning Specialization by Andrew Ng, Stanford;

Coursera: Natural Language Processing Specialization by Deeplearning.io;

Finalist at Wells Fargo Hackathon Conducted by IIT Madras