Bhavya Pratap Singh Tomar

Aspiring ML Engineer - Specializing in AIML

Dedicated AI enthusiast and sophomore at MITS, Gwalior, with a strong foundation in research, data analysis, and Transformer-based model development. Capitalizing on my early NMT exposure, I am driven to further explore and contribute to the dynamic AI landscape, leveraging acquired skills to drive innovation.

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EDUCATION

B.TECH (Artificial Intelligence And Machine Learning)
MITS College, Gwalior, MP

11/2022 - Present   *7.87*

CBSE (Class XII)
St. Mary's School, Bhopal, MP

04/2021   *78 %*

PERSONAL PROJECTS

Text Summarizer ☐
- **Primary Goal :** Develop a versatile NLP-driven Text Summarization Tool for accurate and concise summaries across diverse textual content.
- **Solution :** Utilized SAMSUM dataset with dialogues, IDs, and summaries Trained on "google/pegasus-cnn_dailymail" transformer from Hugging Face i.e an S2S language model. . Params were fine tuned to increase accuracy . Implemented in a modular coding format . Deployed on AWS ECS by Containerizing through Docker

Abstractive Q&A Bot ☐
- **Primary Goal :** Develop an enhanced question-answering system with optimized vector storage, user-friendly sentence formatting and efficient all-dataset retrieval capabilities.
- **Solution :** Abstractive question-answering model development.Pinecone integration for efficient vector storage and retrieval.ELI5 BART model usage for improved answer formatting. Implement a versatile Flax sentence embeddings retriever for diverse dataset retrieval.

Neural Machine Translation with Fairseq
- **Primary Goal :** Develop a machine translation model on custom data using fairseq model.
- **Solution :** A versatile NLP-driven Machine Translation Tool with the Fairseq NMT model, utilizing the IIT Bombay English-Hindi Translation Dataset. Data underwent preprocessing, annotation, and splitting. Model training and hyperparameter tuning ensured performance. Evaluated on SACRE BLEU and BLEU metrics .

RAG-Enhanced Chatbot ☐
- **Primary Goal :** Develop a highly responsive chatbot using RAG, LangChain, and ChromaDB for dynamic conversational interactions.
- **Solution :** Integrated RAG for precision, LangChain for dynamic interactions, and ChromaDB for efficient data management. GPT-3.5 Turbo enhanced responsiveness, collectively advancing the chatbot's conversational capabilities.

SKILLS

Data Analysis | Numpy | Pandas | Tensorflow | Time Series Analysis | Scikit-learn

Deep Learning | CNN | RNN | LSTM | GANs | NLP | PyTorch | Hugging Face Transformers

Gen AI | NLP | NMT | LLM | Text generation | Open AI Api | Sentiment Analysis | Lang chain | LLaMA

Devops | Docker | Kubernetes | AWS | GCP | Git/Github | CI/CD | Open Source

Data Visualization | Matplotlib | Seaborn

DSA | Python | C++ | JS | SQL

ACHIEVEMENTS

Qualifier at Rajasthan IT (03/2023)
Conducted by Government of Rajasthan

National Finalist at Fintechstico (02/2023)
Conducted by NSUT under Techfest

National Finalist at Wells Fargo (01/2023) ☐
Conducted by IIT Madras under Shaastra 2023

Completed Hacktoberfest as a Contributor (10/2022)
Conducted in collaboration with MLH , Digital Ocean

POSITION OF RESPONSIBILITY

Volunteer at GDSC MITS (08/2023 - Present)
Conducted an Orientation Event as a Techinical Team member

Co-founder at a startup (Next.AI) (06/2023 - Present)
Integrated Chatbot for automated Hotel Booking Suggestions

Core Member at Builder's Chain ☐
Managing An Open Source Community named Builder's chain

CERTIFICATES

Coursera : Machine Learning Specilization
Andrew Ng | Standford

Coursera : Natural Language Processing Specialization
Deeplearning.io

Gold Standard Certificate (12/2022)
Completed A december of algorithms conducted by SVCE