Ritav Jash

Hardworking undergraduate with interest in cloud technologies, machine learning, deep learning, and GenAI. Experienced in analyzing, designing, testing, and integrating components to meet business and program requirements.

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 GitHub Profile
 LinkedIn Profile

EDUCATION

- **Bachelor of Technology in Computer Science and Engineering** *2021-25*

  Kalinga Institute of Industrial Technology CGPA: 8.22

PERSONAL PROJECTS

- **Transformer Based Language Model**

  Developed a Transformer model with PyTorch for story completion, leveraging Multihead Attention Mechanism.
  - Implemented decoding strategies such as top k sampling and temperature scaling for text generation.
  - Trained model on a subset of the TinyStoriesV2 dataset, utilizing learning rate warmup and cosine annealing for improved training.
  - Deployed the model using a Streamlit frontend, enabling users to modify generation settings.

- **Airfare Prediction**

  Conducted in-depth exploratory data analysis of Indian flight data and developed a machine learning model for airfare prediction.
  - Developed and compared multiple machine learning models, selecting the best-performing model with 85% prediction accuracy.
  - Saved and deployed the model using Streamlit, with a frontend for users to input details and receive accurate predictions.

- **Youtube Comments RAG**

  Designed and developed a RAG workflow utilizing Langchain for YouTube comments.
  - Preprocessed YouTube comments dataset from LDJSON to JSON data for model training.
  - Used FAISS for vector storage and retrieval and used an embedding model for generating embedding vectors.
  - Compared the result between with and without context.

- **Business Contract Validator(Team Project)**

  Streamlined contract analysis process using Natural Language Processing and Named Entity Recognition
  - Extracted key entities from PDFs using NLP, compared extracted data against a predefined template, and generated a summary highlighting key points and issues.
  - Collaborated with team to build a feature pipeline and containerized the application

STUDENT EXPERIENCE

- **Cognizant Virtual Data Science Intern** *Dec. 2023 – Jan. 2024*

  Forage Online
  - Completed a job simulation focused on AI for Cognizant's Data Science team, conducting exploratory data analysis using Python and Google Colab for Gala Groceries.
  - Developed and implemented a Python module for training a Random Forest Regressor model, including data loading, preprocessing, training, evaluation, and feature importance visualization. Communicated findings using presentation slides.

- **BCG GenAI Job Simulation** *Aug. 2024*

  Forage Online
  - Completed a job simulation involving AI-powered financial chatbot development for BCG's GenAI Consulting team
  - Developed AI-powered financial chatbot using Python and pandas, integrating complex financial data from 10-K and 10-Q reports with rule-based logic.

TECHNICAL SKILLS AND INTERESTS

Areas of Interest: Generative AI, Machine Learning, Deep Learning, NLP, Data Science, Cloud Computing
Languages: Python, C, C++, SQL
Tools/Frameworks: Amazon Web Services (AWS), Streamlit, Scikit-Learn, PyTorch, Pandas, Transformers, Docker, Flask (for API development)
Data: Neural Networks, Predictive Modeling, Data Cleaning, Data Visualization, Exploratory Data Analysis
Soft Skills: Problem Solving, Adaptability, Computational Thinking
Relevant Coursework: NLP, Machine Learning, Soft Computing, Data Structures, Probability & Statistics
Certification:

* Exploratory Data Analysis for Machine Learning - IBM
* AWS Academy Cloud Foundations - Amazon Web Services

ACHIEVEMENTS

* **Odisha Semiconductor Design Challenge (STPI)**, Shortlisted for presentation among Top 14 *March 2024*
* **Achieved Rank 32 on KaggleX Skill Assessment Challenge 2024** *June 2024*