Deepak Raju Kori

Roll No.:2211AI05
Mtech
Artificial Intelligence
Indian Institute Of Technology, Patna

+91-9769880717
deepakkori12345@gmail.com
deepak_2211ai05@iitp.ac.in
Github | Huggingface
linkedin.com/in/deepak-kori-101a821ab/

Education

Degree/Certificate	Institute/Board	CGPA/Percentage	Year
M.Tech. (AI)	Indian Institute of Technology, Patna	84.2%	2022-Present
B.E. (ME)	Thakur College of Engineering and Technology, Mumbai	7.61	2016-2020
Senior Secondary	Maharashtra State Board	72.77%	2016
Secondary	Maharashtra State Board	89.20%	2014

Projects

- **Aspect-Based Multimodal Mining** *Jul '23 - currently*
  Prof. Asif Iqbal (IIT Patna)
  – The mining of user-generated content plays an essential role in managing customer relationships by providing better services to them. Sentiment analysis and complaint identification are key tools in mining user preferences by measuring the polarity and breach of expectations.
  – Current uni-modal and multimodal studies do not differentiate between this thin line between complaint and concern. In our work, we propose the task of aspect term-based analysis beyond sentiments and complaints..
  – **Tools & technologies used**: Large Language Models (LLM), Natural Language Processing (NLP), Convolutional Neural Networks (CNN), Prompt Engineering, PyTorch, Python(Programming Language)

- **Question Answering System**
  (Natural Language Processing) **Source Code**
  – Analyzed the structure and features of the "MedQuad-MedicalQnADataset" to gain comprehensive insights and implemented preprocessing techniques, like text cleaning, handling missing values, and removing duplicates.
  – Compared the performance of base models to fine-tuned models using Mistral-7B and LLama2-7B on the given dataset, demonstrating notable enhancements in model performance.
  – Evaluated fine-tuning using metrics like BLEU Score Comparison and Gemini Model Evaluation, indicating significant improvements post fine-tuning.
  – **Tools & technologies used**: Hugging Face, Gemini-API, PEFT, Quntization, Scikit Learn, Keras, TensorFlow, Pandas, PyTorch, Google Colab

- **Stock Market Prediction**
  (Deep Learning) **Source Code**
  – Developed and implemented a stock price prediction system utilising advanced DL techniques.
  – Built a predictive model and achieved a mean absolute error (MAE) of 3.98 by implementing a Long Short-Term Memory (LSTM) model.
  – **Tools & technologies used**: SKlearn, Numpy, Pandas, Pickle, Seaborn, Matplotlib, Jupyter Notebook

- **Airline Passenger Forecasting**
  (Machine learning) **Source Code**
  – Developed and implemented a forecasting system for airline passenger traffic using time series analysis techniques
  – Utilized ARIMA and SARIMA models to predict future passenger counts.
  – Achieved a mean squared error (MSE) of 6.38 with ARIMA and further improved to 5.44 with SARIMA.
  – **Tools & technologies used**: ARIMA, SARIMA, Pandas, NumPy, Matplotlib. Jupyter Notebook

- **Country Clustering Using K-Means and K-Medoid Algorithms**
  (Machine Learning - Unsupervised) **Source Code**
  – Implemented K-Means and K-Medoid clustering algorithms for country clustering based on comprehensive socio-economic data analysis.
  – **Tools & technologies used**: Numpy, Pandas, Scikit Learn, Seaborn, Matplotlib, Jupyter Notebook

Technical Skills

–**Programming/Development Languages:** Python, C, SQL
–**Tools & OS:** Jupyter Notebook, Google Colab, Linux, Windows, Git
–**Libraries/Frameworks:** Pandas, NumPy, Scikit-learn, TensorFlow, Keras, HuggingFace, Selenium, PyTorch
–**Data Visualization:** Matplotlib, Seaborn, Excel

Certifications

- Calculus for Machine Learning and Data Science
- Machine Learning Specialization on Coursera
- The Complete Data Structures and Algorithms Course in Python