Vishnu Sathwik

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Education

International Institute Of Information Technology, Hyderabad Expected : June 2027
B.Tech in Computer Science (Lateral Entry)

Indian Institute Of Information Technology, Kottayam Nov 2022 to May 2024
B.Tech in Computer Science (Shifed to IIITH) *CGPA: 8.56*

Skills

Languages: C/C++, Python, SQL, HTML/CSS
Libraries: Numpy, Pandas, Pytorch, Tensorflow, Keras, Transformers, Scikit-learn, NLTK, Spacy
Data Structures in C++ and Python

Work Experience

Summer Intern IIT Dharwad May-June 2024

- Developed a Rag based chatbot for legal based question answering specifically for Indian law (Group Work)
- Scrapped Supreme court cases from web and prepared data to build a classifier.
- Built a multi class classifier to classify indian legal cases into Bailable/Non-Bailable, Cognizable/Non-Cognizable, Initial trail court based on judgment for Supreme court cases. (Solo work)
- Worked under Dr.Konjengbam Anand at IIT Dharwad

Projects

Multilingual POS Tagger for Indian Languages | *Transformers , Pytorch, Scikit-learn,* Oct. 2024

- Fine-tuned various multilingual models (mBERT, IndicBERT, MuRIL) for POS tagging across 15 Indian languages with various data sizes from each language.
- Found MuRIL to be the most effective, achieving 40% accuracy and F1 scores with 10,000 sentences per language.
- Improved the model to achieve 82% accuracy and 84% F1 score by introducing language tokens, significantly reducing training data to 1,000 sentences per language.

Headnote Generator For Indian Judgments | *Transformers, Tensorflow* July. 2024

- Conducted a research project on automatic headnote generation for judicial judgments, using the mT5 model.
- Fine-tuned the mT5 model to generate headnotes, facilitating quick understanding for legal professionals.
- Successfully tested the model, demonstrating significant ways in summarization for judicial documents.

Tomato Plant Disease Identification | *TensorFlow, Keras, NumPy, Pandas, Jupyter Notebook, FastAPI* Jan. 2024

- Developed a deep learning model to predict the type of disease in tomato plants based on images of the leaves.
- Preprocessed and augmented the dataset to enhance model generalization.
- Optimized data processing pipelines using TensorFlow's tf.data.Dataset API for enhanced model training efficiency.

Certifications and Technical Achievements

- Participated in International Advanced Summer School on Natural Language Processing (IASNLP) 2024 conducted at IIIT Hyderabad from 21 June 2024 to 6 July 2024
- Deep Learning Specialization by Coursera. link
- Delivered a Talk on Neural Networks and Deep Learning at IIIT Kottayam with 50+ audience.
- Wrote Blogs on Training process of LLMs, 'Impact of AI on Human Jobs' and 'What Happens Inside a Neural Network'.