Veda Sampreetha Maganti

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EDUCATION

Bachelor of Technology in Computer Science and Engineering **Oct 2021 - pursuing**
Amrita Vishwa Vidyapeetham | Current CGPA 8.57 *Chennai, India*

Board of Intermediate Education **Jun 2019 - Jul 2021**
Sri Chaitanya Junior College | Percentage 98.3% *Nellore, India*

Board of Secondary Education **Jun 2018 - Apr 2019**
K.K.R. Gowtham Educational Institutions | GPA 10.0 *Nellore, India*

SKILLS

Programming Languages: Java, Python, SQL, HTML, CSS
Libraries : sklearn, numpy, pandas, tensorflow, keras, pytessaract
Developer Tools or Frameworks: Jupiter, VS Code, Eclipse, GitHub
Interpersonal Skills: Pragmatism, Adaptability, Communication, Problem Solving

PROJECTS

Automatic Speech Recognition for Low-Resource Language Using Wav2Vec2.0 **Feb 2024 - Apr 2024**

- Developed and Fine-tuned Advanced Speech Recognition Models Successfully enhanced Hindi speech recognition using the Wav2Vec2 model from the Hugging Face Transformers library. Fine-tuned the model on the Hindi subset of the Common Voice dataset, achieving a notable Word Error Rate (WER) of 50.34%.
- Addressed the challenge of limited dataset size and GPU memory constraints by optimizing the dataset to balance computational resources and model performance.
- Advanced the multilingual natural language processing field by enhancing the usability and accessibility of voice recognition technologies for Hindi speakers, paving the way for future research in underrepresented language technologies.

Deep Learning based Thyroid Nodule Detection **Nov 2023 - Feb 2023**

- Utilized ResNet101 architecture to create a model that predicts thyroid tumors from ultrasonic images with an accuracy of 0.933.
- Implemented a customized Convolutional Neural Network (CNN) with four layers, achieving an accuracy of 0.873 in classifying thyroid conditions into benign, malignant, and normal categories.
- Employed data augmentation techniques to prevent overfitting and improve the model's generalization capabilities, resulting in a precision (mAP) score of 0.82 for the proposed Mask R-CNN model.

Intelligent Textbook Assistance System *Meta AI (LLAMA2) based ChatBot* **July 2023 - Oct 2023**

- Developed an Intelligent Textbook Assistance System using LLAMA 2 Quantized model, Sentence Transformers, and Vector Stores to provide personalized support and insights to students studying from textbooks
- Achieved a ROUGE score of 0.755, outperforming ChatGPT, demonstrating the system's effectiveness in providing accurate responses to specific medical questions.
- Integrated AI-powered conversational agents into traditional textbooks, promoting active learning, student engagement, and knowledge retention in the digital age.

PAPERS AND PUBLICATIONS

- **Disease prediction based on Symptoms using Hybrid Machine Learning Algorithms**
  Published in 14th INTERNATIONAL CONFLUENCE 2024.
- **Deep Learning based Thyroid Nodule Detection**
  Accepted for 2024 INTERNATIONAL SYSTEMS AND MACHINE LEARNING (ISML 2024).

COURSE WORK INFORMATION

Data Structures | Design and Analysis of Algorithms | Operating Systems | Advanced Computer Networks | Database Management | OOPS in Java | Machine Learning | AI in Natural Language Processing | Full Stack Development

CERTIFICATIONS

- Participated in 4-week course of Amazon ML Summer School. **Sep 2023 - Oct 2023**
- Completed hands-on experience in software engineering with JPMorgan through Forage. **Jul 2023 - Jul 2023**
- Scored 62% in the 4-week NPTEL Data Science course. **Jan 2023 - Feb 2023**