Kavya Uma Meghana

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EDUCATION

Bachelors of Technology in Computer Science and Engineering(AIE) Oct 2021 - pursuing
Amrita Vishwa Vidhyapeetham | CGPA 7.75 *Chennai,India*

Board of Intermediate Education June 2019-Jul 2021
Aditya Junior College | Percentage 96.5% *Kakinada,India*

CORE COMPETENCE AND SKILLS

Programming Languages: Java,Python,SQL,HTML,CSS
Developer tools/Frameworks: Jupiter,VS code,Github,Matlab
Libraries: Tensorflow,keras,openCV,Sklearn,Numpy,Pandas
Interpersonal Skills: Problem Solving, Adaptability, Pragmatism, Collaboration

ACADEMIC 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.

Classification of Cancer IncRNA with Machine Learning Mar.2023-May.2023

- Examined the efficiency of two ML techniques,XGBoost and Random Forest,for locating lncRNAs with cancer
- Amplified model efficiency by 20% through Laplacian Score-based feature selection, showcasing strategic planning and optimization skills in ML enhancement.
- Deployed a pre-trained model to categorize the functions of 7,253 previously unknown long non-coding RNAs (lncRNAs) from the TANRIC database.

Facial Expression Recognition using CNN Oct.2022 - Dec.2022

- Designed a sophisticated Facial Expression Recognition system using advanced Convolutional Neural Network architecture for precise emotion classification.
- Developed a custom CNN in TensorFlow, reducing latency by 20% and improving precision by 10%.
- Achieved 98% face recognition accuracy using a CNN on 28,709 training examples and 3,589 test instances.

PAPERS AND PUBLICATIONS

- **An analysis of large language models: their impact and potential applications** - Published in SpringerLink(2024)
- **Deep Learning for enchanced Detection and Characterization of pulmonary Nodules**- Published in the IEEE 4th CONIT Conference(IEEE - 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

COURSES AND CERTIFICATIONS

- Engaged in a comprehensive 4-week course at Amazon ML Summer School Sep.2023- Oct.2023
- Completed hands-on experience in software engineering with JPMorgan through Forage. Jun.2023-Jul.2023
- Executed practical data science with Coding Saathi Mar.2023-Mar.2023
- Excelled in the NPTEL course on Python for Data Science, with 62% proficiency Jan.2023 -Feb.2023