Sahiti Dharmavaram

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Education

Vellore Institute of Technology, Vellore (VIT), Tamil Nadu, India — 2021- Present

B. Tech in Computer Science and Engineering — **CGPA:** 9.14/10.00

Class 12th: C.B.S.E. Board (2021) — 94.8%

Class 10th: C.B.S.E. Board (2019) — 95%

Projects

- Natural Language Processing App with Text Insights and Speech Summarization [code] — VIT | 08-2023
  - ❖ Multi-faceted text insights such as summarization, sentiment analysis, tokenization, etc.
  - ❖ Speech-to-text with summarization- effortless audio input transformation and summarization.
  - ❖ Streamlit-powered app that uses BERT-based text and audio processing capabilities integrated.
- Application of Explainable AI on Heart Disease Classification Model [code] — VIT | Ongoing
  (Advisor: Prof. Somasundaram K)
  - ❖ Applying XAI modules to interpret parameters and provide explanation to increase trustworthiness and transparency of the heart disease detection model previously trained.
  - ❖ Use of IoT devices/ECG reports to capture instantaneous readings of the patient by the hour.
- Bias aware Income predictor using Machine Learning [code] — VIT | 06-2023
  - ❖ Developed ML model for predicting income range, achieving 89% accuracy by addressing biases.
  - ❖ Created Streamlit website to collect user data and provide income predictions.
  - ❖ Emphasized fairness in job income through bias removal techniques.
- Using Simple GAN output data as input in the Naive Bayes algorithm to obtain accuracy of predicted data [code] — VIT | 07-2022
  - ❖ The simple GAN was trained with the training data and then made to generate new heart data, never seen before, which was used as an input back into the Naïve Bayes Algorithm.
  - ❖ The Naïve Bayes algorithm outputs the presence of heart disease or not, as if the data inputted was legitimate heart data. As verified by this project, the GAN was able to outwit the Naïve Bayes algorithm.
- Classification of Heart Disease using Naive Bayes — VIT | 05-2022
  (Advisor: Prof. Jaishankar N) [code]
  - ❖ Trained a Naive Bayes algorithm using Sklearn on medical data from a hospital.
  - ❖ Increased the accuracy from 86% to 99% by tuning hyper-parameters and selectively dropping features from the dataset.

Academic/Industrial Experience

- Undergraduate Research Assistant, VIT, Vellore — 2023/08 – Present
  (Advisor: Prof. Dhruv Kumar, IIIT Delhi)
- Undergraduate Research Assistant, VIT, Vellore — 2023/06 – Present
  (Advisor: Prof. Somasundaram K)
- Undergraduate Research Assistant, VIT, Vellore — 2022/02 – 2022/05
  (Advisor: Prof. Jaishankar N)

Skills/Courses

Python, C/C++, Java, Pytorch, NLP, GANs, Machine Learning for Medicine, Computer Science, Object-Oriented Programming, DSA, Design and Analysis of Algorithms, OS, Database Management Systems

Awards/Certifications

- Artificial Intelligence and Machine Learning workshop — 2023/04 – 2023/04
  (In association with E-Cell -BITS Pilani, Hyderabad)