VEDANT TEJAS

UG2 IIIT HYDERABAD ECD

PROFILE

I'm a Sophomore at IIIT Hyderabad
I am interested in simplifying and innovating tasks in our daily life and a firm believer that model training is the way to go.
I have an innate ambition for training models on Image processing and studying signals which can be used for optimized satellite communication.
I'm an avid reader, a great enjoyer of sci-fi films, and have a keen interest in knowing more about "business strategy" and events planning.
My hobbies include playing Chess and Sudoku, playing the piano, Stargazing, reading company case studies, following new tech related to advancements in space explorations, learning new languages, and reading autobiographies.

CONTACT

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Github
https://github.com/Starkdoorstep12

HOBBIES

Stargazing
Playing the Piano
Playing Chess
Networking and attending financial events

WHY PRECOG?

I am eager to explore innovative research in model training, aiming to apply knowledge to simplify everyday challenges. I am particularly fascinated by using image processing to train models for analyzing decision-making in chess through data. The cutting-edge work at Precog aligns perfectly with my interests, and I'm excited to contribute to advancing this field.
I am interested in how machine unlearning has been presented at the event and am interested in working more in this field.

EDUCATION

International Institute of Information Technology Hyderabad
2023 - 2028

PROJECTS AND EXPERIENCES

Consulting and Analytics Club IIT Guwahati
May 2024–July 2024
Certification of Excellence (Placed in the top 10%):- Data science and Machine learning (LinkedIn)
➔ Model Training and accuracy determination
➔ Trial of making a personalized chatbot for managing customer queries (not accurate but I tried)
Megathon 2024
Developed an NLP-based solution for mental health analysis using sentiment classification, keyword extraction, and trend detection. Leveraged Wolfram Language for enhanced precision and scalability in mental health insights
https://github.com/Starkdoorstep12/Megathon_MentalHealthAnalysis

Electronics and Communication:

Project on Bird Recognition Heart Estimation and Loudness Segmenting Using MATLAB
https://github.com/Starkdoorstep12/sp_signalmanipulation

➔ **Bird Recognition**: Analyze audio signals using filtering and spectrograms to identify distinctive patterns.
➔ **Heart Rate Estimation**: Use signal filtering and peak detection to extract heart rate from physiological signals.
➔ **Loudness Segmentation**: Segment audio based on loudness by calculating energy levels and identifying transitions.

Collaborating on the modeling and control of a 2-link robotic manipulator https://github.com/Starkdoorstep12/ST_2LinkManipulator

➔ Application of Lagrangian mechanics to describe the system's dynamics.
➔ Simulating and visualizing the manipulator's behavior in MATLAB using PI, PD, and PID controllers. Collaborating on the modeling and controlling a 2-link robotic manipulator
➔ Simulating and visualizing the manipulator's behavior in MATLAB using PI, PD, and PID controllers.

4-bit CLA adder using the TSPC D flip flop for minimal delay (3rd Semester): https://github.com/Starkdoorstep12/VLSI_CLA.git

Making a simple Quadrature down converter for spectral translation https://github.com/Starkdoorstep12/quadrature

Presentation on the possibility of error correction due to information storage in DNA:

Made a human following robot using basic Arduino and motor drivers (1st Semester)