Ashutosh Rai

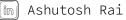🏠 Website 🐱 nogi2k2 in Ashutosh Rai ✉ nogi2k2@gmail.com 📞 9880789924

Projects

DEEP DROWSINESS DETECTION | Pytorch, tkinter
Github

- → A deep learning based drowsiness detection system that utilizes YOLO, to detect signs of drowsiness in real-time video streams.
- → The system is integrated with a tkinter GUI that plays audio alerts when the user is detected as drowsy.

FACE RECOGNITION APP | Tensorflow, Kivy
Github

- → A facial recognition app that utilizes a Siamese neural network for user face verification, trained on over 4000 anchor positive and negative images, allowing for high accuracy in face recognition.
- → The kivy app presents a simple user interface with a button operated verification process, which captures an image of the user, and displays the verification label after comparision with the positives

SIGN ACTION RECOGNITION | Tensorflow, Keras, tkinter
Github

- → A Sign Action Recognition system that leverages MediaPipe Pose, Face and Hand Landmarks to predict the sign action being performed by the user. The system captures video streams of a user performing sign actions and extracts pose, face and hand landmarks using MediaPipe, which are then served to a stacked LSTM neural network.
- → This particular system has been trained on Military Sign actions and is able to predict in real-time with a reasonable accuracy.

Achievements

MACHINEHACK - DSSC SOUTH ZONE | June 2022

- → The challenge entailed utilizing various methodologies of data science, machine learning, and hyperparameter tuning to predict the rental prices of houses. Through diligent efforts and strategic implementation, the team was able to secure a coveted position among the top six contestants, and subsequently qualify for the third phase of the competition.

IITB NO CODE ML | January 2022

- → Developed ML models using Knowledge Studio software to predict customer discontinuation of a service. We placed 3rd among 50 teams from across India and received a certificate of recognition and a cash prize of INR 12,000.

30 DAYS OF GOOGLE CLOUD | October 2021

- → This program provided hands-on experience in Google Cloud's Kubernetes and Cloud environment management, including secure networking systems. It also covered big data handling with Google's BigQuery and MySQL, machine learning API experimentation and data engineering. Additionally, the program included training of multiple AI models for facial, verbal, and audio recognition.

Skills

PROGRAMMING

Proficient:
- Python • C • Javascript
- HTML/CSS

Experienced:
- Java • SQL • PHP • MATLAB
- $\LaTeX$

Familiar:
- Shell • Assembly

LIBRARIES/FRAMEWORKS

Proficient:
- Tensorflow • Keras • Pytorch
- Flask • SciKit-Learn • Numpy
- Pandas

Experienced:
- Tkinter

TOOLS/PLATFORMS

- Git

Education

INDIAN INSTITUTE OF INFORMATION AND TECHNOLOGY KOTTAYAM
B.Tech in Computer Science and Engineering
Nov 2020 - Present | Kottayam, Kerala
CGPA: 8.83 / 10.0

SRI CHAITANYA TECHNO SCHOOL
High School
July 2020 | Bengaluru, Karnataka
Cum. Percentage: 92.4 / 100

SRI CHAITANYA TECHNO SCHOOL
School
May 2018 | Bengaluru, Karnataka
Cum. Percentage: 90.0 / 100