IISc_ARUN KUMAR

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Skills

Exploratory Data Analysis | Machine Learning | Deep Learning | Python | C++ | JavaScript | Flask | NodeJS | ReactJS | MySQL

Projects

Clustering Using Artificial Bee Colony(ABC) Optimization Algorithm   **March'23**
Different approach for clustering using nature inspired algorithm.
- Modification by avoiding randomness with taking average of clusters.
- Try to enhance the accuracy by modification

Human Activity Recognition   **Dec'23**
Implemented prediction model upon sensor generated datasets to predict human activity.
- Real-time recognition system : capable of providing instantaneous activity prediction.
- Got 91.8% accuracy over traditional Machine learning algorithm by using LSTM.

Helmet Detection   **March'23**
Implemented Object Detection System leveraging computer vision and deep learning techniques.
- Got 99% accuracy for detecting the helmet in given image
- Tools: Python, TensorFlow, Keras, OpenCV

Optimizing Performance of Dilated Convolution   **Nov'23**
Optimize the Dilated Convolution by reducing the running time of operation
- Used of pref tool for analysis of performance counters(cache misses etc.)
- Successfully implemented multithreading for optimization.

Obtaining CPI Stack for Programs using Hardware Performance Counters and Linear Regression   **Oct'23**
CPI prediction of a program that reflects in various events like L1-cache-misses etc.
- Used pref tool for measurement of various events.
- Found best events that reflects the CPI by using Feature Selection.

Education

BACHELOR OF TECHNOLOGY (B.TECH) | 2019 - 2023
RAJKIYA ENGINEERING COLLEG, BANDA
Branch : Information Technology | CGPA: 7.82

12Th UP BOARD | 2017 - 2019
SVM HSS BAIDAULAGARH D SIDDHARTH NAGAR | Percentage - 79%

10Th UP BOARD | 2015 - 2017
SVM HSS BAIDAULAGARH D SIDDHARTH NAGAR | Percentage - 87%

Extra-curriculum

SPORTS : Basketball Football Cricket

Languages

English and Hindi

Aim

To become a good researcher in the domain of deep learning specially in computer vision and natural language processing.