Amreen Shaikh

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Education

Birla Institute of Technology and Science (BITS) Pilani
- B.E. (Hons) Computer Science and Engineering

Technical Skills

Python Libraries - Keras, Numpy, Pandas, Os, Random, Matplotlib, OpenCV.
OS - Linux, Windows, Macintosh
c++, java, python, R, Jupyter notebook, mysql, CUDA, c, Android Programming, Prolog, Verilog HDL, Proteus, Firebase, lex ,Unity, Arduino IDE,.

Electives

Graph and Networks (4th semester)
Information Retrieval (5th semester)
Machine Learning (5th semester)
Neural Networks (current semester) (project at semester end)
Real Time Systems (5th semester)
Cryptography (5th semester)
Software Development for Portable Devices (current Semester)
- Exposure to hardware such as Arduino, Raspberry pi, beaglebone black, nodemcu etc

Projects

Prediction of Sanskrit Script Letters
- Used python libraries as OpenCV, NumPy, Matplotlib, Keras.
- Used OpenCv for preprocessing and Converting image to black and white
- Used CNN architecture.

Prediction of labels for furniture dataset
-used CNN to classify.
-Classes consisted of chair, table, lamp, wardrobe etc.
-achieved 96% accuracy on test data

Adjectives vs Verb Prdiction
- used RNN and LSTM model
- used one hot encoding for letters

MNIST - Prediction of digits
-converted images to black and white
-used CNN layers of keras
-achieved 99% accuracy on test data

Predtion of labels for sports related video clips
- captured 40 frames per video clip using cv2.VideoCapture() method
- Used CNN and LSTM layers of Keras

Duplicate Page Detection
- We implemented different similarity indices efficiently to find the similarity between pages.
- Jaccobian similarity index, Dice similarity index, cosine similarity index, etc
- Helpful in removing of duplicate pages and ranking of pages accordingly.

VR Chess Game
- Created using unity, GVR, Firebase.
- Can be played by two players geographically apart.

IOT - Internet of Things
-Raspi - Implemented a server client so that you can play video on remote Host

-BeagleBoneBlack - implemented code to execute commands on remote server and displaying result on local computer

-NodeMCU - used to sense the ultrasonic sensor readings and send it to firebase. and fetching the firebase data through android app to show the real time readings.

ROBOCON
- Made a mobile robot which can throw frisbee. Participated in competition in year 2017.

Android Programming
- App to use Sensors such as Compass, Proximity Sensor and Accelerometer in Mobile Phone.
- App to locate lost phone using another trusted phone contact in case of theft.

Experience

(Practice School -1) Summer Internship at 505-Army Base Workshop, New Delhi (May - July 2017)
-Studied tank and suggested improvements for it.

Mentor

Mentoring course of QSTP-Machine Learning. It is an initiative of Quark. From May 18, 2018- July 15, 2018.

Other Test Taken

-Joint Entrance Examination Mains in year 2015 - Rank 4453 amongst 13 lacks students.
-Joint Entrance Examination Advance in year 2015 - Rank 2610 in more than 1.2 lacks of students.

Extracurricular

- Core member of Department of Photography.
- Trek Club. (Successfully completed Roopkund Trek)
- Abhigyan(NGO).
- BITS Women's Football Club (Defender).

Motivation

I am a *curious* being. I have thirst for knowledge and for exploring the unknown.
Dream goal of my life is discovery which affects entire mankind in a good way.
Values - Honesty , Dedication, Hardwork.

Link

https://github.com/ciel21amour?tab=repositories