

# Amreen Shaikh

**B.E. Computer Science Student**

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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

**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.

### **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 Prediction**

- 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

### **Prediction 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.

## **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.

and what you are doing is creating a future and I want to help build it. Be a part of it's creation.

**Values - Honesty , Dedication, Hardwork.**

## Link

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