



# ADITYA RANA

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## Education

### Indraprastha Institute of Information Technology Delhi

CGPA: 5.76

B.Tech(CSAM)

Aug, 2016 – Jan, 2021

### Dev Samaj Modern School No. 1, New Delhi

Percentage:86.2

CBSE

2014 – 2016

### Dev Samaj Modern School No. 2, New Delhi

CGPA:9.6

CBSE

2002 – 2014

## Skills

**Expertise Area** Computer, Maths

**Programming Language** JAVA, Python, Flask, Django, HTML, JavaScript, postgresQL, SQLite, CSS, Matlab, Verilog, R

**Tools and Technologies** Android Studio, Visual Studio, Eclipse, GIT, Firebase, Linux, Anaconda, Wordpress, Matlab, Microsoft Office, Vivado, Arduino

**Certifications** Financial Markets with honors (an online non-credit course authorized by Yale University and offered through Coursera)  
Verify at [coursera.org/verify/MBYG4JGSZYF4](https://coursera.org/verify/MBYG4JGSZYF4)

**APPLICATION DEVELOPMENT** certified teacher at Cuemath.

## Internships

### Sakaar Outreach (Rural)

Guide: Gayatri Prakash

(May,17 –June,17)  
Team Size - 10

Community development programme which was based on exposing students to the organization and functioning of Non - Government organizations.

## Projects

### Chain Reaction Game

Guide: Vivek Kumar

(Oct,17 – Nov,17)  
Team Size - 2

We designed the chain reaction game using OOPS in Java. Object-oriented programming aims to implement real-world entities like inheritance, hiding, polymorphism etc in programming. The main aim of OOP is to bind together the data and the functions that operate on them so that no other part of the code can access this data except that function. The objective of Chain Reaction is to take control of the board by eliminating your opponent's orbs. JAVA GUI was also used to design the application.

### The Sixth Sense - Mouse Controlling Glove

Guide: Alexander Fell

(Feb,17 – April,17)  
Team Size - 3

A physical glove that the user would physically need to wear, and as the fingers are flexed, the hand gestures are recorded and interpreted. Basically, being able to control the cursor, without using a mouse or a touchpad just by the motion of the hand.

### Classification of Images into categories using Text based image retrieval

Guide: Rajiv Ratn Shah

(Aug,18 – Nov,18)  
Team Size - 4

Text-based image retrieval can be based on annotations that were manually added for disclosing the images (keywords, descriptions), or on collateral text that is "accidentally" available with an image (captions, subtitles, nearby text). It applies traditional text retrieval techniques to image annotations or descriptions. Keywords can be used as metadata to describe images, text documents, database records, and Web pages.

### Basic character recognition using Correlation

Guide: Ponnurangam Kumaraguru

(Sep,19 - Nov,19)  
Team Size - 3

We designed an algorithm to interpret the text from the image. Our objectives was to provide basic character recognition using correlation, recognizing text in images is useful in many computer vision applications such as image search, document analysis etc, quickly make textual versions of printed documents, training the matlab module with a set of images of all objects of interest under variable conditions.

## Digihop

Guide: Ponnurangam Kumaraguru

(Sep,20 - Dec,20)

Team Size - 4

We designed a medical health app linked with FHIR (FHIR also allows exchange of very specific, well-defined pieces of information such as a medication list, a problem list or lab results, rather than entire documents) servers and firebase to access the information about patients and book their appointments in the real time world.

**We received recommendation for our idea by the Lok Nayak Jay Prakash Narayan Hospital.**

## Web Application using Flask

(Feb,21 - Feb,21)

Team Size - 1

It was an independent project where I created a web application using flask in Python. I implemented databases using Flask-SQLAlchemy, implemented an authentication system using the flask-bcrypt and flask-login extensions and also added the ability for a user to edit their information and upload their profile picture.

## Positions of Responsibility

- |  |                       |
|--|-----------------------|
| • Organising Team -Operations   Odyssey'19 | (Jan,19 – Jan,19)     |
| • Organising Team -Operations   Esya'18    | (Aug,18 – Aug,18)     |
| • Event Head of PWNED   Esya'18            | (Aug,18 – Aug,18)     |
| • Organising Team -Operations   Odyssey'18 | (Jan,18 – Jan,18)     |
| • Batsman in college Cricket Team          | (Aug,17 - Dec,17)     |
| • Volunteer in PWNED   Esya'16             | (Aug,16 – Aug,16)     |
| • Deputy Headboy (Senior School)           | (April,15 - April,16) |
| • House Captain - H.N.Sethna (High School) | (April,13 - April,14) |
| • High School Basketball Team              | (April,12 - April,14) |
| • Member of AudioBytes Club                | (Aug,16 - Dec,20)     |

## Awards and Achievements

- 1<sup>st</sup> prize in Tug of War intramurals 2018
- 2<sup>nd</sup> prize in HuntIt (A treasure hunt event) in Esya'17

## Interests and Hobbies

- Singing
- Piano
- Theatre
- Basketball

- Cricket
- Racing

Declaration: The above information is correct to the best of my knowledge.

Aditya Rana

Date: April 23, 2021