# Anirudh Panigrahi

SECOND YEAR UNDERGRADUATE, ELECTRICAL ENGINEERING, INDIAN INSTITUTE OF TECHNOLOGY, DELHI



# Academic Details

#### **Indian Institute of Technology Delhi**

Hauz Khas, Delhi

B.Tech, Electrical Engineering

2018-present

• CGPA: 9.412 — Till 2nd semester Remal Public School, Rohini

Sector-3, Rohini, Delhi

CLASS XII, CBSE

• Percentage: 97.2%

#### Bal Bharati Public School, Rohini

Sector-14, Rohini, Delhi

CLASS X, CBSE

• CGPA: 10.00

# Scholastic Achievements \_

- Awarded IIT Delhi Semester Merit Prize for being in the top 7 percentile in the second semester (Spring-2019) in a batch of 920 students
- Secured All India Rank 18 in Joint Entrance Examination Mains 2018 among 1.1 million candidates
- Secured All India Rank 407 among 210,000 candidates in Joint Entrance Examination Advanced 2018, the most prestigious engineering entrance examination of India
- Qualified for Award of KVPY Fellowship 2016 bestowed by Department of Science and Technology, Government of India. Secured All India Rank 208

## Relevant Courses \_\_\_\_\_

Introduction to Electrical Engineering, Introduction to Computer Science, Data Structures and Algorithms\*, Digital Electronics\*, Circuit Theory\*, Signals and Systems\*, Linear Algebra, Calculus

- To be completed by November 2019

# Projects \_

#### **Musical Note Recognition**

PROF. ABHISHEK DIXIT, COURSE PROJECT FOR SIGNALS AND SYSTEMS

October 2019 - November 2019

- · Worked on recognising the musical notes of an input sound file using digital signal processing
- · Analysed the Fast Fourier Transform of a recorded sound file to recognize different sound pulses from various types of music sources(vocal or instrumental) as musical notes

#### Generating Electricity during walking using a wearable leg-driven energy harvester

PROF. AMIT KUMAR JAIN Ongoing

• Using mechanical components like bearings, roller clutches, etc. to make a wearable energy harvester driven by leg movements during walking

· Designed the mechanical component of the harvester using AutoDesk Inventor

### Job Scheduler for a Project Management platform using various data structures

PROF. SUBODH KUMAR, COURSE PROJECT FOR DATA STRUCTURES AND ALGORITHMS

September 2019 - October 2019

- Implemented data structures like Trie, Red-Black Tree, Maxheap and used them to make a Job scheduler that effectively schedules the execution of jobs in a typical project management platform
- Analysed the update/query times of the above data structures to decide the best possible way to store all the data of the platform for optimum performance of the scheduler

#### **Automated Night Lamp using LDR**

Prof. M. Veerachary, Course project for Introduction to Electrical Engineering

March 2019 - April 2019

- · Made an Automated Night Lamp on a breadboard using Light Dependent Resistor, Relay, and an Operational Amplifier(op-amp) used as a
- · Used a transistor as a switch which receives the output of the voltage comparator(op-amp) and thus switches the relay depending on the op-amp's output

#### **LHospital - Hospital Management Database**

COURSE PROJECT FOR CLASS XII, CBSE

July 2017 - January 2018

- Used Object Oriented Principles extensively in C++ for developing a database for all employees, patients, stock, budget etc. for a typical hospital
- Developed the database heirarchy of different types of hospital employees, including methods to add/remove/update/view employee data, pay salaries
- · Worked on designing a text-based user interface that facilitates the operations implemented in the database
- · Implemented a user account system for all employees in the hospital, with different access levels for different types of employees
  - Uses a login and and an encrypted password
  - Password is stored as a vigenere cipher
- Worked in a team of 3, used Git and GitHub extensively for collaboration

# Skills \_

Languages Python, Java, C, C++, SML

**Tools and Technologies** Git, Linux, Autodesk Inventor, MATLAB

# Co-curricular Activities

- Academic Mentor for the course of Engineering Mechanics for the freshers batch 2019-20, assisted students in understanding the course better and helped them with their assignments
- Won 3rd place in Inter-hostel Freshers Music Video, 2018 among 13 hostels
- Participated in **State level music choir competition** after being placed **first** in **Zonal** and **Inter-zonal** level
- Worked under EUMIND in a virtual exchange project; collaborated with students in Denmark to share the art and culture of our countries