Siddharth Chandak　　　**17D070019**
Electrical Engineering　　　**UG Second Year**
Indian Institute of Technology Bombay　　　**Male**
　　　DOB: 12-03-1999

Examination	University	Institute	Year	CPI / %
Graduation	IIT Bombay	IIT Bombay	2019	9.95
Intermediate/+2	CBSE	Bhavan's B.P. Vidya Mandir	2017	94.60
Matriculation	CBSE	Bhavan's B.P. Vidya Mandir	2015	10.00

Academic Achievements

- **Department Rank 1** after 1st year of B.Tech.
- Among the **top 50** candidates in the **Indian National Olympiads in Chemistry and Physics** who were selected for respective **Selection Camps** for International Olympiads in 2017
- **All India Rank 346** in JEE Advanced 2017 among 0.22 million students
- **All India Rank 73** in JEE Main 2017 among 1.18 million students
- Recipient of **KVPY Fellowship** by the Government of India with an **All India Rank 86** in 2016
- Received Certificate of Merit (Awarded to **top 75** candidates) in **Indian National Maths Olympiad** in 2015
- Received the **NTSE Scholarship** for securing rank in top 1000 in 2015

Projects

- **Application Form Reader**　　　May 2018 - July 2018
  Institute Technical Summer Project
  Created an autonomous system to read multiple application forms using Intelligent Character Recognition & sort them according to their content
  - Built a feeding mechanism using motors and Arduino to move pages one at a time
  - Used IR sensors to stop pages below camera and take photographs
  - Detected text boxes in form with accuracy of greater than 90% using OpenCV library in Python
  - Trained a neural network for character recognition using Keras library in Python

- **Gamification of Safety training**　　　May 2018 - July 2018
  Guide - Prof. Narendra Shiradkar, EE, IIT Bombay
  Created interactive visualizations and quiz games for safety training
  - Created a road safety game using Unity and C# with multiple scenarios depicting traffic rules
  - Analyzed fire propagation and human motion models in Unity for creating a fire safety training game
  - Used Unity to build a quiz game connected to a MySQL database using PHP

- **Digital Phase Meter**　　　Spring 2017 - 18
  EE112- Course Project, Guide - Prof. Subhananda Chakrabarti
  Designed a circuit to calculate and display the phase difference between two sinusoidal input waveforms of the same frequency
  - Used Timer, Comparator and Counter ICs to display angular phase difference independent of frequency

Position of Responsibility

- **Teaching Assistant** for Quantum Physics and Applications   July 2018 - present
  - Conducting weekly tutorial sessions for a batch of 50 first year undergraduate students to clear doubts and discuss solutions to problems

Technical skills

- **Programming Languages:** C++, Python, LATEX, C#, SQL
- **Software Skills:** Unity, Arduino IDE, SolidWorks, AutoCAD, Ngspice, gnuplot

Relevant Courses

- **Electrical Engineering:** Introduction to Electrical Systems, Introduction to Electronics, Data Analysis and Interpretation*, Network Theory*, Electronic Devices*
- **Mathematics:** Calculus, Linear Algebra, Differential Equations I, Complex Analysis, Differential Equations II*
- **Other:** Computer Programming and Utilization, Biology, Organic & Inorganic Chemistry, Physical Chemistry, Economics*, Quantum Physics and Applications, Electricity and Magnetism
- **Minor in Computer Science and Engineering:** Data Structure and Algorithms*
- **EE Honours:** Applied Linear Algebra*

                                                    * To be completed in November 2018

Extra-Curricular activity

- Completed one year Yoga training under NSO - Yoga in 2017 - 18
- Organiser for Abhyuday 2018 - Annual Social Fest of IIT Bombay
  - Interacted with students from other colleges to increase participation
  - Helped in creating a quiz for school students to increase awareness about human rights
- Attended 10 day Vipassana Meditation Camp
- Participated in XLR8 2017 conducted by Electronics and Robotics Club, IIT Bombay
  - Designed a Bluetooth controlled 4 wheeled bot
- Stood 1st in Math-A-Maze 2016 conducted by Visvesvaraya National Institute of Technology, Nagpur
- Qualified for semi finals of Classmate Spell Bee 2014