- Pursuing minor in **Computer Science and Engineering**

SCHOLASTIC ACHIEVEMENTS

- Secured **All India Rank 34** in JEE (Advanced) '14 out of **150,000** candidates
- Secured **99.99 percentile** in Mains B.Tech '14 out of **1.3 million** candidates
- Shortlisted for the prestigious **KVPY '12** mentorship program at Indian Institute of Science, Bangalore

PROJECTS

Data Acquisition and CAN protocol Subdivision, IIT Bombay Racing Team *(Aug '15 - Present)*
Guide: Prof. Ramesh Singh, Mechanical Engineering Department, IIT Bombay
IITB-Racing is a team of 70 students which designs and fabricates an electric race car for the Formula Student UK
- Responsible for designing and fabricating **Data Acquisition System circuit** to analyze the motor controller data and the data from all the sensors mounted on the vehicle
- Established a wireless communication using **XBEE wireless transmitter(868MHz)** between vehicle and laptop

Isolated Digit Recognition *(May '16 - Jul '16)*
Guide: Prof. Preeti Rao, Electrical Engineering Department, IIT Bombay
Recognition of spoken digits(Zero to Nine) through Machine Learning in **Scilab**
- Imitated human auditory response in closest way possible using **Mel Frequency Cepstrum**
- Achieved **85%** accuracy in detection of the digits by training machine with **k-means** cluster centers

Reliability and Performance of Trap based NAND flash memories *(Jul '16 - Present)*
Guide: Prof. Souvik Mahapatra, Electrical Engineering Department, IIT Bombay
Improving **Charge Trap Flash** memories to make them an ideal replacement for Floating Gate Flash memories
- Simulating various parameters like electric fields, potentials of CTF memory cell using C++
- Studying effect of **Silicon Nitride** composition on retention and Program-Erase cycle characteristics

Mobile-Arduino Flashlight communication *(Nov '15 - Feb '16)*
Guide: Prof. Kumar Appaiah, Electrical Engineering Department, IIT Bombay
Packetised communication between Arduino and mobile achieved through flashlight and a pair of IR LEDs
- Built an **android app** which takes string input and encodes into bit strings for which flashlight blinks
- Decoding is done by a pair of **IR LEDs**, Arduino and a maximum transfer rate of **40 bits per second** is achieved

Projector Keyboard *(May '15 - Jun '15)*
Institute Technical Summer Projects, IIT Bombay
- Made a prototype of projector keyboard under **INR 2000** using 2 web cameras and **OpenCV**
- Selected for **Tech and RnD Expo**, annual science exhibition at IIT Bombay

POSITIONS OF RESPONSIBILITY

Class Representative *(Aug '15 - May '16)*
B.Tech, Department of Electrical engineering, IIT Bombay
- Organized extra tutorials and help sessions for some tough courses
- Initiated the semester-end photoshoot for the batch of electrical engineering sophomores

Coordinator, Team-Web *(May '15 - Dec '15)*
Entrepreneurship Cell, IIT Bombay
- Maintained the home page of Entrepreneurship Cell, IIT Bombay
- Responsible for maintaining the **National Entrepreneurship Challenge** Web page

TECHNICAL SKILLS

Programming	C/C++, VHDL, Python, HTML, CSS
Software	Scilab, MATLAB, OpenCV, OpenGL-SDL, Quartus, AutoCAD, NGSPICE