



Harshit Moondra
Electrical Engineering
Indian Institute of Technology Bombay

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UG Third Year (B.Tech.)
Male
DOB: 04-04-1998

Examination	University	Institute	Year	CPI / %
Graduation	IIT Bombay	IIT Bombay	2018	8.63
Intermediate/+2	HSC	Pace Jr. Sc. College	2015	91.38
Matriculation	ICSE	Gokuldham High School	2013	95.50

SCHOLASTIC ACHIEVEMENTS

- Secured **All India Rank 121** in **JEE (Advanced)** among 150,000 candidates. 2015
- Secured **99.94 percentile** in **JEE (Mains)** among 1,500,000 candidates. 2015
- Ranked in **top 1%** in National Standard Examination in Chemistry 2015
- Pursuing a **Minor degree** in **Computer Science and Engineering**. 2016-Present

WORK EXPERIENCE

Senior Design Engineer May 2017-Present
Team Shunya IIT BOMBAY

Team Shunya, the only college team to be selected from India to participate in Solar Decathlon China 2018, is a team of passionate young engineering and architecture students building a **solar-powered, self sustainable** house for the Indian middle class, which could serve as the answer to India's growing energy and housing problems

- Part of the Institute Technical Team in SDC 2018 aiming to construct a **Zero Energy House**
- Working presently in the **Home Automation** department of the Electrical Sub-Division in the team
- Planned and implemented the working and the logic for different modes of **Lighting** and the **HVAC** system having both Automated and Manual control by taking inputs from various sensors in the house
- Designed an **Automated Hybrid Solar Oven** using Solar Hot Air Generator to cook food saving energy

TECHNICAL PROJECTS

Self Playing Guitar May 2016-Jun. 2016
Institute Technical Summer Project Robotics Club, IIT BOMBAY

- Worked on a guitar to make it play any tune fed to it through a laptop on **Arduino**
- Aimed at making such a project which would reduce the human error and increase guitar run-time
- Coded the algorithm for the synchronization of **solenoid push** and **servo motors** for the fretting and strumming of the autonomous guitar giving appropriate delay between two notes

Cycle Rental Shop Jan. 2017-Apr. 2017
Course Project Guide: Prof. Ganesh Ramakrishnan CS Dept. IIT BOMBAY

- Implemented various **data structures** to help us rent, return, add, donate cycles and to pay dues
- Encrypted the password using **hashing** which was hidden from the terminal for the user on the device
- Maintained the track of each cycle's location, its previous users, user's latest location, their payment amount and other personal details in the **database**

Boolean Systems Dec. 2016-May 2017
Project Guide: Prof. Virendra R. Sule Electrical Dept. IIT BOMBAY

- Generated codes for solving for the **orthogonality** of boolean functions using both the trivial and the recursive methods on both Python and C++
- Aimed at **parallelizing the codes** to make it run efficiently for dealing multi-variable boolean functions
- Used orthogonality to solve problems in **Genetic Biology** and has a lot of scope in **Cryptography** also

Kaun Banega Crorepati

School Project

2013

Gokuldham High School

- Replicated the game show on **Java** using multidimensional arrays for various stages of the game
- Included **four lifelines** - Flip A Question, 50-50, Audience Poll, Ask The Expert, the last two giving right answer with 0.99 probability
- Implemented the game on a **timer** of 15 minutes after which the game is over and made the game screen interactive by using patterns and time delay functions.

TECHNICAL SKILLS

Programming Languages

VHDL, Assembly Language, L^AT_EX, C, C++, Java, Python, XML

Softwares

Eagle, NGspice, Quartus, Adobe Premiere Pro, Audacity, AutoCAD, SolidWorks, Visual Studio

Platforms Worked on

Arduino, AVR, CPLD(Altera MAX3000A), Tiva-C

POSITION OF RESPONSIBILITY

Organiser

Horizons, Mood Indigo

Dec. 2015

IIT BOMBAY

- Planned and handled **98 events in 4 days** as a part of the Disaster Management Team during the Asia's largest college cultural festival
- Contacted artists for various events to showcase their unique talent on a huge platform of Mood Indigo

KEY COURSES

Electrical Engineering

Microprocessors*, Foundation of VLSI CAD*, Probability and Random Measures*, Signals and Systems, Communication Systems*, EM Waves*, Digital Systems, Analog Circuits, Electrical machines and Power Electronics, Data Analysis and Interpretation, Network Theory, Electronic Devices

Computer Science and Mathematics

Computer and Network Security*, Computer Networks, Data Structures and Algorithms, Linear Algebra, Computer Programming and Utilisation, Calculus, Complex Analysis

Miscellaneous

Introduction to Psychology*, Economics, Electricity and Magnetism, Quantum Physics and Applications, Chemistry, Biology, Engineering Drawing

(*to be completed by Nov 2017)

EXTRA CURRICULAR ACTIVITIES

- Attended and completed the code.fun.do 24hr Hackathon organised by **Microsoft** Jan. 2016
- Pursued **French** Language for 3 years in High School 2007-2010
- Achieved 5th rank in the **Remote Control Plane** competition 2015
- Played various sports like Table Tennis, Badminton, Swimming at hostel level