



Arihant Parsoya
Civil Engineering
Indian Institute of Technology Bombay

15D260012
UG Third Year (B.Tech.)
Male
DOB: 26/02/1997

Examination	University	Institute	Year	CPI / %
Graduation	IIT Bombay	IIT Bombay	2018	8.32
Intermediate/+2	Vikas The Concept School	Vikas The Concept School	2014	92.20
Matriculation	Vikas The Concept School	Vikas The Concept School	2012	9.60

EDUCATION AND ACHIEVEMENTS

- 2015- Present Pursuing a **Major** in **Civil Engineering** with **Minor** in **Industrial Design Center**
- 2016 Awarded **Change of Branch** after first year on the basis of excellent academic performance
- 2013 Awarded the prestigious **KVPY** Scholarship, instituted by the IISc

WORK EXPERIENCE

- Jun '17 – **Google Summer of Code**, Python Software Foundations.
- Aug '17 *Guide: Francesco Bonazzi & Dr. Ondrej Certik | SymPy*
- Implemented Rule Based Integration(RUBI) in SymPy using pattern matching capabilities of MatchPy
 - Created Mathematica to SymPy rules parser of RUBI rules
 - Implemented RUBI utility functions in SymPy
- June '16 – **Web Developer and Designer**, ZIPTOWN Logistics Pvt. Ltd, Mumbai.
- July '16
- Created an online interface of service using Yii and integrated with android application
 - Developed and Designed web interface for price estimation of multiple deliveries using Google Maps API
 - Added real time chat functionality to the main website

RESEARCH PROJECTS

- March '17 **Exploring 2017 UP Assembly Election Results.**
Prof. Venkatesh Rajamanickam | IDC, IIT Bombay
- Created an interactive visualization tool to analyze 2017 Uttar Pradesh(UP) elections
- Jan '17 – **Accidents by un-natural causes in Indian States and Union Territories.**
- Feb '17 *Prof. Venkatesh Rajamanickam | IDC, IIT Bombay*
- Analyzed accidents data of all states of India under different fatalities from year 2001 to 2013
 - Created bubble matrix and sankey diagram to compare accidents between different states and categories across time
- Dec '16 **30 years of marriages in Singapore.**
Prof. Venkatesh Rajamanickam | IDC, IIT Bombay
- Analyzed marriage data of Singapore from 1984 to 2015 for people of different demographics such as age, religion and education level
 - Created chord diagrams to visualize correlation between different brides and grooms of each category
- Jul '16 – **Educational Infrastructure Data Visualization for Maharashtra.**
- Dec '16 *Prof. Venkatesh Rajamanickam | IDC, IIT Bombay*
- Analyzed facilities data of more than 1 lack government schools in Maharashtra and developed sorting algorithms to recursively sort data based on location
 - Created tree map visualization to see aggregate facilities at different hierarchical levels
- Nov '16 – **Shaking the Foundations of an Empire.**
- Dec '16 *Prof. Venkatesh Rajamanickam | IDC, IIT Bombay*
- Created data story of Dandi March movement and how it emerged.
 - Made interactive visualizations to understand crowd location and demographics of people in the movement.

ACADEMIC AND TECHNICAL PROJECTS

Mar '17 – **Chat application for Sport followers.**

Apr '17 *Prof. Anirudha Joshi | Course Project, Industrial Design Center, IIT Bombay*

- Build android application to enhance conversation between people while watching sports
- Evaluated the application during football match

Jul '16 – **Improving Agriculture Efficiency in India.**

Nov '16 *Dr. Aparna Rao | Course Project, Center for Entrepreneurship, IIT Bombay*

- Developed business model to improve agriculture efficiency in India using technology and economies of scale
- Validated our idea with real farmers and analyzing different scientific farming methods

Jan '16 **Binary Multiplier Circuit.**

Prof. M.B. Patil | Course Project, IIT Bombay

- Designed and simulated binary multiplier circuit of four bit number
- Implemented multiplication logic using shift register integrated circuit

Feb '16 **MyCare.**

Kandy.io Hackathon | WnCC, IIT Bombay

- Created online portal for patient and doctor interaction using Kandy.io API
- The portal was capable of allowing live video chats, text chats and file sharing
- Won 3rd position in the competition

POSITIONS OF RESPONSIBILITY

April '16 – **Teaching Assistant.**

May '17 *Engineering Drawing | Student Support Services*

- Responsible for teaching Engineering Drawing and AutoCAD to 60 students

April '16 – **Web Convener.**

May '17 *Insight | IIT Bombay*

- Core team member, developing new website on Django and also creating and managing new microsites to post articles and blogs.
- Developing API and design for major websites such as IITB Senior Survey and Quibbler
- Creating templates for websites and managing posts on the website

TECHNICAL AND COMPUTING SKILLS

Programming Languages Python, C++, JavaScript, Java, PHP, MySQL

Libraries SymPy, OpenCV, D3.js, P5.js, Symengine, Box2D, Google Maps API, WebGL

Frameworks NodeJS, Django, Yii

Tools Raspberry PI, Arduino, MATLAB, Heroku, Git

Softwares Autodesk 3D Max, Google SketchUp, Unity, Processing

Operating Systems MacOS, Microsoft Windows, Ubuntu

RELEVANT COURSES

Computer Science Human Computer Interaction, Data Structures and Algorithms, Computer Programming and Utilization, Introduction to Machine Learning(Coursera)

Mathematics Calculus, Linear Algebra, Differential Equations

Other Mathematical Structures for Systems and Control, Digital Image Processing of Remotely Sensed Data, Introduction to Robotics(MIT OCW)

Extra Curricular Activities

- Won **3rd** position in Kandy.io hackathon conducted at IIT Bombay
- Secured **Silver** medal Vijyoshi State Level drama competition
- Camp Attendee, National Science Camp Vijyoshi held at IISc bangalore
- Participated in XLR8 remote controlled robot making competition
- Created games as individual project on Processing and P5.js