



Achin Parashar
Civil Engineering
Indian Institute of Technology Bombay

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UG Third Year (B.Tech.)
Male
DOB: 26/07/1998

Examination	University	Institute	Year	CPI / %
Graduation	IIT Bombay	IIT Bombay	2020	8.18
Intermediate/+2	CBSE	Campion School, Bhopal	2016	91.60
Matriculation	CBSE	Campion School, Bhopal	2014	87.40

- Pursuing **Minor** in Department of **Computer Science and Engineering (CSE)**, IIT Bombay [2017-Present]

SCHOLASTIC ACHIEVEMENTS

- Excelled in JEE Advanced Examination with **99.02** percentile among **0.2 million students** [2017]
- Achieved **All India Rank 587** among 1.4 million students in JEE Main Examination [2017]
- Secured **State Rank 1** and **International Rank 19** in International Mathematics Olympiad (IMO) [2014]
- Awarded **AA** grade (top 12.5%) in Computer Programming and Utilization [2018]
- Recipient of IBM Docker Essential badge for creating Docker container using **IBM** Container Service [2019]

KEY ACADEMIC AND TECHNICAL PROJECTS

Handwritten Mathematical Expression Solver | Introduction to Machine Learning [Oct 2018 - Nov 2018]
Guide - Prof. Sunita Sarawagi, IIT Bombay *Course Project*

- Successfully designed and implemented regression tree classifier from scratch based on variance reduction technique and stood **2nd** in one of the two closed competitions which were held on the **Kaggle**
- Developed a solver that recognizes handwritten math expression from image and subsequently evaluate it
- Used CNN approach for recognizing the digits and symbols, by making a **3** layered neural network for accurate prediction
- Implemented image-processing techniques, using **OpenCV** python library for segmentation of digits and symbols

Chain Reaction | Computer Programming and Utilization [Jan 2018 - May 2018]
Guide - Prof. Krishna S, IIT Bombay *Course Project*

- Redesigned the android game "Chain Reaction", aim being to stack lobes to eliminate opponents
- Devised and introduced a technique so that the game can be played against a human counterpart
- Integrated and solved the problem using file handling, classes, structures and inheritance in C++

Alumni Student Mentorship Program | Research Project [Apr 2019 - Present]
Platform to foster meaningful mentoring relationships between alumni and current students *Self-Project*

- Developing an algorithm to allocate **300+** alumni mentors to students under the ASMP program, taking into account the preferences of all involved stakeholders, reducing allotment time by **75%**
- Designed and implemented the personalized cart logic similar to online retail stores to select a mentor based on one's personal preferences in Django framework

Analysis of Water Supply System | Applied Hydraulic Engineering [Apr 2019 - May 2019]
Guide - Prof. Riddhi Singh, IIT Bombay *Course Project*

- Designed the algorithm to identify major and minor energy losses upto **93%** accuracy in pipe flow using **C++**
- Analyzed and evaluated the Hydraulic gradient line for **10+** systems and plotted them using Matplotlib library in Python

Alumination Website | Student Alumni Relation Cell (SARC), IIT Bombay [Apr 2018 - Oct 2018]
Flagship event of the organization *Self-Project*

- Revamped the official website of Alumination and developed interactive illustrations using Javascript and CSS
- Incorporated Bootstrap 4 front-end framework to make the website responsive in both PC's and mobiles alike

Bluetooth Controlled Racing Bot (XLR8) | Institute Technical Council (ITC), IIT Bombay [Oct 2017]
Technical tournament of the institute *Competition*

- Was a member of a 4-man team that built a manually controlled bot capable of negotiating different kinds of obstacles in its path(including 30 degree gradient elevation) in stipulated amount of time
- Gained experience in wireless controlling learnt circuit designing on PCBs to add many active elements

RC Plane | Institute Technical Council (ITC), IIT Bombay [Jan 2018 - Apr 2018]
Technical tournament of the institute *Competition*

- Designed and Fabricated a remote controlled plane as a part of competition conducted by Aeromodelling club, IITB
- Investigated optimum design parameters which enhanced flight stability and performance using coroplast with partially symmetric, dihedral aerofoils

PROFESSIONAL EXPERIENCE

Cogo Freight Pvt. Ltd. | Software Developer

[Jun 2019 - Jul 2019]

Platform to provide tech driven solutions for international shipments market

- Created **7+ APIs** using **Ruby on Rails** framework to facilitate email **tracking** by fetching information like total link clicks, impressions, user browsers/devices and subsequently used the data for individualized, targeted information flow
- Developed Frequently Asked Questions(FAQ) **buckets** with personalized features and visibility for each user
- Built an optimized program for selective **database fetching** over Postgres, MongoDB for customized report generation
- Implemented the front-end user interface for back-end views using ReactJS library for single page applications

BodhiTree / Evalpro | Online learning portal

[Dec 2018 - Jun 2019]

Guide - Prof. Varsha Apte, Computer Science & Engineering, IIT Bombay

Research Project

- Working with a team which is responsible for developing an online classroom learning portal for the students
- Implemented the design and user interface using Html, Css and Java-script in Bootstrap front-end framework
- Remodeled the views structure of the website for efficient webpage rendering using MVT framework

POSITION OF RESPONSIBILITY

Core Team Member | Student Alumni Relations Cell

[Apr 2019 - Present]

Leading the web team of the **55+** membered two-tier body which works closely with Dean ACR

- Responsible for maintaining and updating **7+ domains** of SARC using **Nginx** reverse proxy over **gunicorn** web servers
- Ideated and Revamped SARCasm web portal, one-of-its-kind online IIT-B **crypt hunt** to cater **3500+** students
- Incorporated Django's **MVT architecture** and implemented UI/UX design using JavaScript for user friendly experience
- Guided **120+** volunteers for effective communication; successfully contacted **10,000+** alumni in 10 days
- Capitalised a quarter-over-quarter **growth increment of 300%** in social media reach on Facebook
- Ideating the structure of Institute Yearbook 2020 and its website to provide nostalgic look back to **1.5k+** fresh graduates

Academic Mentor | Department Academic Mentorship Program (DAMP)

[Apr 2019 - Present]

Selected from **65+ applicants** on the basis of balanced academics, extracurricular activities & peer reviews

- Mentoring **6** sophomores in academics, time management and involved in general upliftment of the department
- Working closely with DAMP team to organize sessions on Honors/Minors & to enhance student professor interaction

Competitions Coordinator | Mood Indigo

[Aug 2018 - Jan 2019]

Led a team of **10+** Organizers in the Asia's largest college Cultural Festival; **141,000+** footfall with **220+** events

- Responsible for successfully conducting **2** competitions in Journalism and Communication genre, and functioned as a first point of contact for the cultural heads of **50+** participating colleges across the country
- Capitalized a year-over-year ascension of **111%** increase in participants and **120%** judges in the competitions
- Invited celebrities for showcasing of events at NCPA and Prithvi Theatre under Live Your Passion(LYP)

TECHNICAL SKILLS & INTERESTS

Programming	C, C++, Java-Script, Python, MATLAB, R, Ruby, ReactJS, NodeJS, Git-Hub
Development tools	HTML, CSS, Bootstrap, Android Studio, Octave, AutoCAD, SolidWorks, Arduino
Database Management Systems	MongoDB, Postgres, redis, sidekiq
Frameworks	Django, Rails

RELEVANT COURSES

Computer Science	Computer Programming and Utilization, Machine learning, Data Structures and Algorithm Cryptography and Number theory
Mathematics	Calculus, Linear Algebra, Differential Equations, Partial Differential Equations,
Core Courses	Structural Mechanics I,II*; Structural Design(RCC)*; Structural Design*; Solid Mechanics Solid Mechanics; Geotechnical Engineering I*; Applied Hydraulic Engineering;
	Building Materials and Construction; Geodesy; Transportation Engineering I*;
Miscellaneous	Quantum Physics, Electrodynamics, Engineering Drawing, Electrical Circuits, Biology, Chemistry

EXTRA CURRICULAR ACTIVITIES

- Part of the **semifinalist** cricket team for Inter-Hostel **Cricket General Championship** among **16+** teams [2018]
- Completed and excelled in an **year** long course in **Cricket** conducted by National Sports Organization (NSO) [2017]
- Successfully completed certified **Consulting** Workshop conducted by Academic Council, IIT Bombay [2018]
- Successfully completed the Android **app** development Bootcamp organized under Technical Summer School [2018]
- Volunteered for **Robin Hood Army(RHA)** distribution of food from community to serve less fortunate people [2019]
- Participated in the World's largest beach Clean-up Campaign at Versova Beach launched by **Afroz Shah** [2019]
- Involved in Social campaign of Mood Indigo, **"See through my eyes"**, on spreading awareness about eye donation [2018]