



**YASH AGRAWAL**  
**Civil Engineering**  
**Indian Institute of Technology, Bombay**

**170040034**  
**B.Tech.**  
**Gender: Male**  
**DOB: 04-05-1999**

Examination	University	Institute	Year	CPI / %
Graduation	IIT Bombay	IIT Bombay	2021	
Intermediate	CBSE	S.V.M Public School	2017	93.20%
Matriculation	CBSE	S.V.M Public School	2015	9.6

## PROFESSIONAL EXPERIENCE

**Times Internet Ltd.** | Software Developer [May'20-Jun'20]

- Developed an **HTTP API** to read system details like browser and OS from provided user-agent as an API request
- Built a Spring-Boot project, linked with a presentable home-page and an **error 404** page for unknown requests
- Achieved a lag-free performance during heavy load test case using **JMeter**, optimised by **1000+ JUNIT** test cases

**PowerAnser Labs Pvt. Ltd.** | Web Developer [May'20-Jun'20]

Received a **Letter of Recommendation** from the project head for commendable hard work and fast learning ability

- Worked on an interactive **web application** for "Short Term Forecasting of load demand" using an Angular project
- Solely developed a login page and various components for handling events in generating & displaying 'load' data
- Successfully implemented XLSX (reader-writer), excel to json convertor, bootstrap and ng charts dependencies

**Consulting Engineers Group Ltd.** | Trainee Engineer [May'19-Jul'19]

Received a **Letter of Recommendation** from the Associate Director for robust strong analytical skills and work ethic

- Worked in projects, analysing data from various field conditions to be reflected in the design of a superstructure
- Independently developed a program to design **unconventional structures** directly on STAAD with input length
- Successfully built an optimised excel code, giving result in **< 2 sec**, reducing man power by a substantial amount

## KEY PROJECTS

**Game Development** | Self Project [Nov'19-Dec'19]

Implemented the concepts of **Core JAVA** like **Abstract Window Toolkit** by developing **5 applications** on a **notepad**

- Programmed the famous **snake game** controlled by keyboard with increasing **levels** using threads & key listener
- Used panel, multiple buttons-labels, borders & event handlers to create a **2-player tic-tac-toe** & a guessing game
- Pioneered the concept of threads & action listeners in developing a fully functional **stopwatch** and a **chat-bot**

**Trend Analysis – Krishna river basin** | Analytics Course Project [Aug'19-Nov'19]

Guide: Prof. Indu J | Digital Image Processing of Remotely Sensed Data, Civil Department

- Performed trend analysis for all the months, four seasons and annually on weather data (temperature values) from **1950-2014 (64yrs)** recorded by Indian Metrological Department (**IMD**) on **2,58,948 km<sup>2</sup>** Krishna river basin
- Implemented the concept of **Mann Kendall** test, with **95%** confidence interval & Sen's Slope to tell **+ or - trend**

**Black Manta Technologies** | Technical Course Project [Aug'18-Nov'18]

Guide: Prof. Raj Jaswa | Desai Sethi Centre for Entrepreneurship, IIT Bombay

- Researched in a team of **5** for an efficient residential dehumidifier, based on **thermoelectric material** technology
- Minimised** maintenance and increased life span by designing on Peltier effect, involving **no mechanical parts**
- Built **business model canvas** by analysing market and customer problems to achieve a cheaper & durable design

**Killer Sudoku** | Coding Course Project [Jan'18-Apr'18]

Guide: Prof. Krishna S Narayanan | Department of Computer Science and Engineering, IIT Bombay

- Programmed a fully functional code to find solution for a complicated Killer Sudoku game using **C++** language
- Pioneered the use of back-chain coding, multiple recursions, loops & 2D array for solving the puzzle in **< 60 sec**

**Understanding Occupant Behaviour in Low Income Housing** | Course Project [Jan'19-Apr'19]

Guide: Dr. Ronita Bardhan | Lallubhai Complex rehabilitation and resettlement (R&R) colony 'vertical slums'

- Prepared a **report** on detailed assessment of air quality in living areas of the subject, ventilation systems during cooking hrs, number of people suffering from any kind of illness & an overall schedule of the people in a unit

**XLR8 (Remote Controlled Wireless ATV) | STAB, IIT Bombay**

[Aug'17-Sept'17]

- Successfully built a **remote-controlled ATV bot** controlled by an android app (via **Bluetooth**) in a **4 member** team
- Incorporated **Differential Steering Mechanism** with self-made chassis, circuit designing and Arduino system
- Completed all the challenging tasks and eventually finished the race with our autonomous terrain vehicle (ATV)

**LEADERSHIP EXPERIENCE****General Secretary | Civil Engineering Association (CEA), IIT Bombay**

[Mar'19 - Jul'20]

*Elected representative of 800+ students to lead a council of 14 members for all the informal departmental activities*

- Launched official IITB, civil department magazine '**Civil Insights**', for **1st time**, managing an editorial team of **8**
- Executed a budget of **INR 5 lakh** for various deals; catering to **10+** annual activities of civil engineering association
- Achieved **25% y-o-y growth** with collective participation of **500+** department students in all the informal events

**Food & Beverages and Hospitality Manager | AKAAR, IIT Bombay**

[Mar'19 – Apr'20]

*Net worth: INR 10 lakh | Footfall: 15,000+ | Colleges: 400+ | Events: 30+ | Part of a 14-member core team*

- Executed the management of **INR 1.5 lakh**, used for food sale kiosks, booking hotels, transport & welcome kits
- Responsible for providing accommodation to participants from **200+** colleges and dealing with diff. food brands

**Institute Student Mentor (ISMP) & Department Academic Mentor (DAMP)**

[Apr'19 – Present]

*Selected in a team of 108 out of 300 applicants through rigorous interview process, SOP and peer reviews*

- Responsible for guiding **6** sophomores and incoming freshmen to provide counsel for their holistic development
- Part of a special **8-member** ARP team; mentoring **2** underperforming students to improve their academic status

**Mess Secretary | Hostel 9, IIT Bombay**

[Aug'18-Apr'19]

*Elected by 400+ students | Part of 22-Member hostel council*

- Managed and optimised hostel mess catering for over **400 +** students; dealing with a contract worth **INR 80 lakh**
- Negotiated per day mess prices with contractors and brought it down by a margin of **11.25%** for the next tender
- Responsible for organizing various fun food events like tea party, gala dinner, special lunch and '**Khaugali**' (Fest)

**Class Representative | Civil Engineering Association (CEA)**

[Apr'18-May'19]

*Elected by 50+ students of one division of 2021 batch | Part of 14 member CEA Council*

- Represented a batch of **50+** students and acted as a connecting link between students and the administration
- Organized a **1-day** educational field trip to **CWPRS**, Pune for all the **102** sophomores in applied hydraulics course

**ACHIEVEMENTS AND EXTRACURRICULAR ACTIVITIES**

Academic	<ul style="list-style-type: none"> <li>• Completed <b>Deep Learning</b> specialization (5 courses; Coursera) certified by <b>deeplearning.ai</b> ('20)</li> <li>• Completed Certified <b>Python</b> Specialization (5 courses; Coursera) from <b>University of Michigan</b> ('20)</li> <li>• Finished Certified <b>JPMorgan Chase &amp; Co</b> virtual internship experience as a <b>software engineer</b> ('20)</li> <li>• Achieved <b>99.035</b> percentile in IIT JEE Advanced examination amongst <b>0.22 million</b> candidates ('17)</li> <li>• Secured <b>99.605</b> percentile in JEE Mains examination amongst <b>1.2 million</b> students appearing ('17)</li> <li>• Secured <b>100% marks</b> in International Olympiad of Science (<b>1<sup>st</sup></b> state rank, <b>4<sup>th</sup></b> national rank) ('14)</li> </ul>
Sports	<ul style="list-style-type: none"> <li>• Played <b>under 19 Hockey championship</b> at Inter School Sports &amp; Games Competition, CBSE ('11)</li> <li>• Ran <b>5 km</b> general championship marathon ("<b>Crossy</b>") for hostel 9 to achieve 4<sup>th</sup> position ('18)</li> </ul>
Cultural	<ul style="list-style-type: none"> <li>• Secured <b>First Position</b> in main dramatics general championship (MDGC), ICC IIT Bombay ('18)</li> <li>• Completed a year-long <b>Violin</b> training under National Sports Organisation (NSO), Cultural ('17)</li> </ul>
Social	<ul style="list-style-type: none"> <li>• Volunteered to raise awareness for the blind people via <b>See Through My Eyes Campaign</b> ('18)</li> <li>• Worked with <b>SHE: Sanitation and Health Education</b> initiative; eradicate menstruation taboo ('17)</li> </ul>
Technical	<ul style="list-style-type: none"> <li>• Built a Bluetooth controlled obstacle manoeuvring bot for maze runner and line follower competitions using IR sensors and ultra sound sensors; successfully completed all tasks ('17)</li> <li>• <b>Programming:</b> C/C++, JAVA, Python, ML (NN), SQL, MATLAB, HTML5, CSS, JavaScript, TypeScript</li> <li>• <b>Software:</b> Spring Boot, Angular (8 &amp; JS), JMeter, AutoCAD, SolidWorks, QGIS, MSOffice, STAAD</li> </ul>
Relevant Courses	Optimization in Civil Engineering*, Numerical Analysis*, Digital Image Processing of Remotely Sensed Data, Introduction to Geographic Information Systems, Introduction to Entrepreneurship, Introduction to computer programming and utilization, Introduction to Electrical and Electronic Circuits, Differential Equation I-II, Linear Algebra, Calculus, Construction Management*, Economics, Sociology, Engineering Law, Problems in Social Ethics <div>*Courses to be completed by Dec'20</div>