Mohit sharma

Metallurgical Engineering and Materials Science

Indian Institute of Technology Bombay

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B.Tech.

Gender: Male

DOB: 2/4/2002

Examination	University	Institute	Year	CPI / %
Graduation	IIT Bombay	IIT Bombay	2024	
Intermediate	CBSE	S K mother international school	2019	
Matriculation	CBSE	G D mother international school	2017	

Upcoming **Software Development Engineer Intern 2023** at **Amazon Development Services**

SCHOLASTIC ACHIEVEMENTS

- Secured merit-based **Branch Change** to Metallurgical Engineering (awarded to **10%** out of **1000+** students) (2021)
- Secured **98.90** percentile in **JEE Mains** from more than **1.2** million students appeared from all over India (2020)
- Ranked among the top **3.7** percentile in **JEE Advanced** from more than **0.24** million students all over India (2020)
- Ranked **3rd** in School among **100+** students in 12th board examinations by Central Board Secondary Education (2019)

PROFESSIONAL EXPERIENCE

Software Engineer | Lightstone Technologies   (May 22'-July 22')

High-growth startup tackling the application of Indoor Navigation and Asset Tracking

Awarded **Letter of Recommendation** for exemplary performance and dedicated work during the Internship

- Implemented **Indoor Navigation** and **tracking** and **Indoor - Outdoor Map Positioning** system using **LeafletJs** library
- Used data stored in **Cloud Database** acquired using **IOT** devices present in the laboratories and **simulated** it on Map
- Connected **Django** backend with **ReactJs** for Facility Map **Path - Tracking** using Django **GeoLocation** library
- **Implemented** and Acknowledged the basics of **REST API**, **HTTP** methods, and serverless programming

Full Stack Developer | YoZu - A Doubt Solving Platform   (Oct 21')

High-growth EdTech startup providing an E-Learning Providers to students leveraging user friendly platforms

- Executed user-side **Chat System** based on **Django-Websocket** for a smooth conversation between a user and instructors
- Integrated **Firebase** for **Real-Time** databasing offering a non-relational Database Storage using **Firestore** system with fully functional **API** interfaces that agents can use and reducing the need for an intermediary layer

KEY PROJECTS

Tinkerers' Lab Website | *24×7 'Makerspace' for innovators and tinkerers* - **Institute Technical Council** (July 21')

- Used **Django's REST API** and **Angular** to create an **E-Inventory** management system for **2,500+** users
- Encompassed Technician's point, Dynamic Machine status, Machine tutorials and **Deployed** on **Gymkhana server**
- Integrated Back-end with the **MYSQL relational database** along with the API interlinked for handling requests from user side or from Technician side and **Two-way interaction** between technician and student
- Included an admin panel with **SSO-authentication** to manage the inventory and to receive discrepancy alerts

Bill Reimbursement Portal | **Institute Technical Council, IIT Bombay**   (June 22'-Present)

- Automatizing Bill reimbursement process in the institute by providing a Backend in **NodeJs** using **ExpressJs** Framework
- Employed **ReactJS** in Frontend for responsive **UI**, in conjunction with implementing **SSO Login authentication**
- Integrated Google spreadsheet using **Google Cloud API** with the Express **Server** for fetching and posting bills by users, generating **invoices** and displaying the bill status in conjunction with its deployment on Gymkhana Server

Socket Programming | *Self-Project*   (April 22')

- Implemented a **server-client** system to handle and accept multiple **requests** from various clients via **TCP connection**
- Used **Socket Programming** in **C++** to develop a system to differentiate **Multiple Endpoints**, supported error checking and keeping track of time taken for each request of every client to prevent **DOS** and **Port Conflicts**
- Implemented a **TCP connection** to access files and messages stored in the **server** and transfer across the **network**

Data Analysis of ICC World-Cup | *Course Project: DS203* | *Prof. Amit Sethi*   (Nov 21')

- Performed **Exploratory Data Analysis** on ICC dataset for obtaining performance status of team, players, etc.
- Implemented **PDA** using **Linear**, **RF**, **SVM Neural Network** regressors and predicted scores with good accuracy
- Curated **Logit**, **SVM**, **Decision Tree** classifiers for predicting match winner by engineering different features

OTHER PROJECTS

Heart Disease Prediction | *Course Project: DS303* | *Prof. Biplap Banerjee* (May 22')
- Executed Binary classification by using **SVM**, **KNN**, **Grid and Decision Trees**, and **Logistic Regression** models
- Utilized **Matplotlib**, **Seaborn**, and **Plotly** Python Libraries for Exploratory Data Analysis by doing feature engineering

Kubernetes-App | *Self Project* | *CRIO.DO project hub* (April 22')
- Containerizing the code using **Docker**, employing automation for building and pushing to an **image registry**
- Creating **Github Workflow** and setting up **Kubernetes clusters** along with examining **Container Networking Interface**

Real-Time Chat Application | *Self Project* (April 21')
- Build a **real-time** Web-App using **ExpressJs** in **Node** for a full-duplex and low-latency channel between **server** and browser
- Implemented **Socket.IO** along with **WebSocket** connection to enable real-time bidirectional event-based communication

Bot for Live Score Alerts using Python | *Self Project* | *CRIO.DO project hub* (April 21')
- Extracted match scores by **Web Scraping** using **Beautiful Soup** and parsing the data in **JSON** Format for Telegram bot
- Worked on **Chrome Dev Tools** for Exploring the **API Calls** and automatizing telegram **bot** for real-time notifications

POSITIONS OF RESPONSIBILITY

Web Manager | *Institute Technical Council, IIT Bombay* (April 22'-Present)

Part of a 22 member team spreading all the Technical activities of the Institute, catering to 10,000+ people
- **Head** of a **6-membered** team **responsible** for maintaining the websites of the Institute Technical Council, **Technical clubs**, **Technical teams** and all other technical activities in the institute or associated with the **Institute authorities**
- Spearheading the development of the **Counselling Portal** under **Student Welfare Centre** - IIT BOMBAY, which will manage all of the students' psychometric evaluations and descriptions and automate the scheduling of appointments
- Solely **responsible** for the Maintainance of the **Gymkhana Apache Webserver** and **Deployment** of **Web applications**
- Revamped the main website of Institute Technical Council using **Js and Bootstrap**, in the previous tenure containing all the information related to the Technical events taking place under the council and **Tech General Championship**

Mentoring & Leaderships | *Institute Summer Technical Activities* (Jan 22'-Present)

Actively groomed talented minds in the institute by providing Mentorship and Guidance
- **Codewars** | **Web and Coding Club:** Lectured **3** Teams of **15+ Students** in a **3-week Virtual Bot Programming Championship** among **1200+** students, on **Python** and trained them in **DFS** and **BFS** Algorithms
- **Institute Technical Summer Project:** Guided multiple teams of students for their real-life application based projects which aim to fill the gaps of **Automations** in the institute like **PHO portals** and automated email schedulings
- **Seasons of Code** | **Web and Coding Club:** Assisted **15+** web enthusiasts in the field of **Software Development**
- **Year of Security** | **Cyber Security Club:** Mentored **6-membered** team to teach them Basic **Bash CLIs** in Linux

COURSES UNDERTAKEN

- **Computer Science**   **Computer Programming & Utilization** | Numerical Analysis | **Data Structures & Algorithms**
- **Data Science**   Linear Algebra | **Programming for Data Science** | Introduction to Machine Learning
- **Inter-Departmental** Basics Of Electricity & Magnetism | Economics | Quantum Physics & Applications

TECHNICAL SKILLS

- **Programming**   C | C++ | Python | HTML5 | Bootstrap | CSS | R | Java script | SQL | Linux | MATLAB
- **Web Development**   AngularJS | Django | ReactJs | NodeJs | PostgreSQL | MERN Stack | MongoDB
- **Data Science**   Numpy | Pandas | Matplotlib | Scikit-learn | Tensorflow | Scipy | OpenCV
- **Software Skills**   Git | Visual-Studio Code | Google Firebase | AutoCAD | SolidWorks | TinkerCAD | LaTeX

EXTRA CURRICULAR ACTIVITIES

- Worked as a 1-month **Software Trainee** at **Drona Aviation Pvt. Ltd.** for improving backend and **SEO** (2022)
- Participated in **World Programming Championship 2021** organized by **Techfest** - Asia's Largest Technical Fest (2021)
- Participated in **Code Wars** Version 2.0 (**Algorithmic trading**) organized by Web n Coding Club, IIT Bombay (2022)
- Participated in **Venture Capital Investment** Competition organized by **Finance Club**, IIT Bombay (2022)
- Attended **Robotic Hand** Bootcamp on **Solidworks** under Electronics & Robotics Club, IIT Bombay (2020)
- Completed a year-long **Football** Training program under **National Sports Organization**, IIT Bombay (2021)
- Completed **4 km Innovation Run** organised by Brookfield Properties & Entrepreneurship Cell, IIT Bombay (2022)
- Completed **Arduino TinkerCad** Bootcamp organized by Electronics & Robotics Club, IIT Bombay (2020)
- Conducted **50+** myth buster sessions about eye donation to **100K+** people under the social initiative **'Drishti'** (2021)