



**Mihika Dhok**  
**Electrical Engineering**  
**Indian Institute of Technology Bombay**

**20D070026**  
**Dual Degree (B.Tech. + M.Tech.)**  
**Gender: Female**  
**DOB: 27/02/2002**

Examination	University	Institute	Year	CPI / %
Graduation	IIT Bombay	IIT Bombay	2025	
Intermediate	HSC, Maharashtra Board	Dr. Ambedkar College, Nagpur	2020	
Matriculation	Central Board of Secondary Education	Narayana Vidyalayam, Nagpur	2018	

## ACADEMIC ACHIEVEMENTS

- Was the **City Topper (Nagpur city)** in **AISSE-2018** (10th Standard Board Exam) conducted by Central Board of Secondary Education (**CBSE**); secured **98.6%** and **CGPA 10** overall (*June 2018*)
- Awarded with the **Achiever's Award**, by **Raisoni Group of Institutions**, for City Topper (*2018*)

## PROFESSIONAL EXPERIENCE

**Software Development Intern | Aurum PropTech** (*May 2022 - July 2022*)

Awarded a **Letter of Recommendation** for a dedicated performance during the internship tenure

- Used **Flutter** to develop the **frontend** of Sound Emotion Analyzer (**SEA**), a webapp by the company
- Implemented **user login**, **audio player**, fetching images and **data representation** using Pie Charts
- Connected the app to **Firestore** database along with **role-based user assignment** (admin and user)
- Integrated **APIs** exposed by backend for **asynchronous** fetching & deployed webapp using **Jenkins**

**Application Developer Intern | Incluzon** (*December 2021 - January 2022*)

- Worked on the **frontend** of the Incluzon Recruiter App using **React JS** along with **React-Bootstrap**
- Implemented various **React components** to build a **navigation bar**, **side bar** and other webpages
- Worked in **collaboration** with a **team** of software developers along with **GitHub** for version control

## TECHNICAL PROJECTS

**Institute Placement Portal** (*May 2022 - Present*)

*IPT Dev Team | Placement Office, IIT Bombay*

- Working on **revamping** the **Institute Placement Portal** using **AngularJS** and **NestJS** frameworks
- Using **Docker** images to run **PostgreSQL** database and **pgAdmin4** server in **virtual** environment
- Opened **Pull Requests** on **GitHub** that have been successfully **merged**; using **Postman** for **APIs**
- Collaborating** in a team of **10+** members, adding various **new features** to the pre-existing portal

**BloggerHead | Intro to MERN** (*April 2022 - July 2022*)

*Seasons of Code | Web and Coding Club, IIT Bombay*

- Mentored** two groups of **8 mentees** to build a full stack **blogging webapp** using the **MERN** stack
- Organized and managed supply of **learning material** periodically along with **multiple checkpoints**
- Ideated** and helped in development of the webapp, resulting in **two successful versions** of the same
- Implemented **CRUD** functionality, **RESTful APIs** along with **User login** service for authorization

**Intro to App Development | Flutter** (*April 2021 - July 2021*)

*Seasons of Code | Web and Coding Club, IIT Bombay*

- Used **Flutter** framework in **Android Studio** to design an **interactive UI** along with **API requests**
- Built a **News App** to fetch & show trending news in various categories with **Web View** for articles
- Designed the **frontend** of a **Poster App** which fetches posters from the backend as requested by user
- Implemented **user authentication** using **Firestore** as remote database along with **OTP** verification

**ClearVR | Aurum Hackathon** (*June 2022 - July 2022*)

*Part of internship at Aurum PropTech*

- Developed a webapp using **React JS** & **Node JS** to convert **panoramic** image of a room to **3D view**
- Used the **React-three-fiber** library for **3D rendering**, **PLY Loader** and other features in the app
- Worked with a team of **5** members to **pitch** the product in real time complete with a business model

**Contact Form | Django** (*June 2022*)

*Self Project*

- Used **Django** framework to build a **form** to collect details from user and then store them in **database**
- Functionalities include **form editing** enabled after submission, **mailing responses** to respective user

## OTHER PROJECTS

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### IITB-RISC | Course Project

(March 2022)

Guide: Professor Virendra Singh | Electrical Engineering Department, IIT Bombay

- Programmed fully-working **8 register, 16-bit computer system** that performs **17 R-I-J** operations
- Designed **datapath**, state control table, control word; assembled components using **VHDL** in Quartus

### Arithmetic Logic Unit (ALU) | Course Project

(September 2021)

Guide: Professor Maryam Baghini | Electrical Engineering Department, IIT Bombay

- Integrated Shifter, Subtractor, NOR and Multiplier through a **MUX** circuit using **VHDL** in Quartus
- Verified designs by performing the **RTL** and **Gate-Level simulation** in ModelSim and **ScanChain**

### MATLAB and Simulink

(July 2021)

Tinkerers' Laboratory | Technical Summer School | Learner's Space, IIT Bombay

- Completed **MATLAB Onramp** and **Image Processing Onramp** and were introduced to real-life applications for the same and to the application of **Simscape**, **Simulink** and **Control Design**
- Introduced to basics of **Machine Learning** using **Google CNN** incorporated in **MATLAB** itself

## TECHNICAL SKILLS

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Languages	C++   JavaScript   Dart   Python   HTML   MATLAB   VHDL   Assembly Language
Development	Flutter   Node JS   Express JS   React JS   Angular JS   Bootstrap   Django   CSS
Softwares	Android Studio   Docker   Firebase   Postman   Quartus   Keil   GNU Radio   AutoCAD

## POSITIONS OF RESPONSIBILITY

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### Editor | Background Hum | Department of Electrical Engineering

(July 2021 - Present)

- Member of the **Editorial Board** of **Background Hum**, the department **biannual newsletter**
- Authored **three** articles as the **Lead Panelist**, one in each of the half yearly editions from 2021-23
- Worked in a **team** of three as a **co-panelist** for **two** articles each in every edition of the Newsletter

### One-on-One Mentor | ELIT | English Learning Program

(January 2022 - Present)

- **Mentored** a student assigned to me by **ELP**, helped him **improve** and **gain confidence** in **English**
- **Analyzed** the issues faced by my mentee through **regular interaction** and prepared an **Action Plan**
- **Prescribed books, videos** by famous orators and other similar resources to aid in improving English

### Organizer | Literarium 2021 | Events Department

(February 2021 - April 2021)

- Annual **Literary Arts** **flagship event** with **quizzing, writing, slam poetry & author panels**
- Worked in a student-led team to coordinate **10+ events** with a combined turnout of **500+ students**
- Prepared a **database** of **50+ authors** and **spoken word artists**; successfully hosted **3 authors**

## KEY COURSES TAKEN

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Computer Science	Computer Programming and Utilization
Electrical Engineering	Digital Systems <sup>#</sup> , Microprocessors <sup>#</sup> , Signal Processing, Power Electronics - I & II <sup>#</sup> , Analog Circuits <sup>#</sup> , Electronic Devices <sup>#</sup> , Controls and Systems <sup>#</sup>
ML and Statistics	Probability and Random Processes
Mathematics	Linear Algebra, Differential Equations, Calculus, Complex Analysis

(\*To be completed by Apr-'22, #Includes Corresponding Lab Course)

## EXTRACURRICULARS & MISCELLANEOUS

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- Organized a **College Counseling Session** for **500+ students**, in a **team** of 10+ members (2021)
- Participated and won several quizzes, like **Bournvita Quiz Contest 2015** (First Prize), **Kids for Tigers Quiz 2016** (First Prize) and **Cliffhanger** (Second Prize in 2015, Consolation Prize in 2016)
- Successfully completed **NSO Keyboard** over two continuous semesters as freshman (2020-2021)
- Awarded **Level 1** in **Grade I Exam** conducted by **Trinity College of Music, London** (2013)
- **1st Runner-Up** in **Basketball** tournaments held by **District Sports Office (DSO)** (2014-2017)
- Secured '**B**' grade in both the **Elementary and Intermediate Drawing Examination**
- Selected at **National Level** for **AWIM National Olympics** which was organized and conducted by **SAE India** held at **Bangalore, India**, and hosted by **SAE India Bangalore Section** (2013)