Ansh Preet | **210100018**
Mechanical Engineering | **B.Tech.**
Indian Institute of Technology Bombay | **Gender: Male**
DOB: 15/11/2003

Examination	University	Institute	Year	CPI / %
Graduation	IIT Bombay	IIT Bombay	2025	9.1
Intermediate	CBSE	Kendriya Vidyalaya New Can't Allahabad	2021	97.60%
Matriculation	CBSE	Kendriya Vidyalaya New Can't Allahabad	2019	93.20%

Academic Achievements

- Among the top **1%** of candidates in **NDA-146** qualified for SSB Interviews among **4,00,000+** candidates . *(Jan '21)*
- Secured top **3** percentile rank in **JEE Mains** among more than **9,30,000** candidates appeared in the exam *(Oct '21)*
- Secured top **3** percentile rank in **JEE Advanced** among more than **2,50,000** candidates appeared in the exam *(Oct '21)*

Key Projects

Paytm Application | Self Project *(Jan '24 - ongoing)*

- Led the development of a web application akin to Paytm, utilizing the MERN stack (MongoDB, Express.js, React, Node.js).
- Executed the integration of secure payment processing features for robust financial transaction operations.
- Implemented design concepts using React, integrating Figma and Tailwind CSS. Ensured a seamless and intuitive user experience by incorporating meticulous robust state management, routing, and adept backend API integration.
- Developed backend solutions with Node.js and Express, focusing on scalability and transaction integrity within the application

e-Commerce Website | Self Project *(Oct '23)*

- Led the end-to-end development of a responsive eCommerce website using **React.js**, with a focus on intuitive product display, cart management, and secure user authentication.Implemented modern design principles for enhanced user experience
- Implemented robust backend APIs with **Express.js** and **Node.js**, utilizing **MongoDB** for secure storage of product details and fortifying user information.Employed best practices for scalable and efficient data retrieval.
- Created an efficient **admin panel** for product management, empowering administrators to add and update items effortlessly.
- Orchestrated **full-stack** integration, ensuring real-time data exchange and optimal performance throughout the project.

RichFeyn Website | Startup Project *(Jun '23)*

- Developed a visually stunning and responsive website for the startup Richfeyn, utilizing **Django** as the backend framework,**HTML, CSS, Javascript and Bootstrap** for frontend design, and SQLite3 as the database.
- Crafted a modern and visually captivating user interface that effectively showcased the startup's **services, mission, and values**, while incorporating intuitive and aesthetically pleasing UI elements.
- Collaborated closely with the startup's team to understand their brand identity and vision, Leveraged effective communication and feedback loops throughout the design process to ensure alignment with the startup's goals and expectations.

Chat Application | Self Project *(Dec '22)*

- Developed a chat web application using **Node.js** and **Socket.IO** for seamless communication between clients and server.
- Implemented a responsive user interface with **HTML** and **CSS**, allowing users to send and receive messages in real-time.
- Enhanced user experience by incorporating features such as **notification sound effects** and an **emoji picker.**
- The notification system ensured that users were promptly informed about new messages, chat room activities, and other relevant updates, resulting in an enhanced user experience and efficient communication flow.

Sarcasm | Student Alumni Relation Cell *(Jan'23)*

- Developed a full-stack web application using the Django framework for Crypt Hunt, incorporating a live leaderboard feature.
- Implemented registration functionality, allowing more than **3,000+ participants** to sign up for the event.
- Created **time bonus questions** within the application, enhancing the overall gaming experience for participants.
- Integrated live **social media sharing** capabilities into the web application, enabling participants to share their progress .

Machine Learning | Summer Of Science *(May '23)*

- Demonstrated a deep comprehension of prominent machine learning libraries, including **sci-kit-learn, TensorFlow, PyTorch**, and **Keras**, Also **Numbpy** and **Pandas** by engaging in extensive learning and exploratory activities.
- Acquired proficiency in implementing machine learning algorithms using scikit-learn, including Decision Trees, Random Forests, and Support Vector Machines **(SVM)**, gaining expertise in classification tasks.**optimization** problems
- Demonstrated knowledge of deep learning frameworks like TensorFlow and PyTorch, understanding their core concepts and successfully designing and training Convolutional Neural Networks**(CNNs)** and Recurrent Neural Networks **(RNNs).**
- Gained familiarity with Keras, a high-level neural networks library, and its ease of use for **rapid prototyping and model development**, showcasing the ability to leverage its intuitive API and compatibility with popular frameworks.

Other Projects

Text Utilities | Self Project *(Feb '23)*

- Developed a web application using **Django** as backend and **HTML, CSS** for frontend, allowing users to perform text operations such as removing punctuations, converting to uppercase, removing new lines, and counting characters.
- Utilized Django's Model-View-Template **(MVT)** architecture to handle user requests, process the input text based on selected operations, and render the modified text on the frontend for real-time analysis.
- Performed rigorous test-driven development **(TDD)** to ensure the reliability and stability of the application, covering critical functionalities, edge cases, and handling potential errors, resulting in a robust and error-free text analysis tool.

eCommerce Website | Self Project *(March '23)*

- Developed a fully functional e-commerce website using **HTML, CSS, JavaScript, Bootstrap, Django** as the backend framework, and MySQL as the database.Implemented responsive web design principles, ensuring optimal user experience.
- Integrated secure user authentication and authorization systems, allowing registered users to create accounts, login, and manage their profiles.And optimised the website performance using **caching techniques, and database indexing** .
- Utilized **Django's ORM** (Object-Relational Mapping) to establish database connectivity, ensuring efficient data storage, retrieval, and management, And advanced admin panel features, enabling seamless management of products

Alumination | Student Alumni relation Cell, IIT Bombay *(Oct '22)*

- **Leaded** the five member team of web developers for the proper accomplishment of the flagship event of SARC .
- Fabricated and developed the website for the event **Alumination** which served as a marvelous platform for promoting meaningful mentoring relationships between **10,000+** current students and **1,000+** alums of **IIT Bombay** .
- Collaborated in a team of **5 UGs** in developing the responsive website using HTML, CSS, JavaScript, Bootstrap, and Django as framework resulting in **2000+** registrations and **150% y-o-y** increase in registrations .

Positions of Responsibility

Web Coordinator | Student Alumni Relation Cell ,IIT Bombay *Jun '22)*

*Part of a **60 member** team responsible for fostering relations among **60K+** alumni and students .*

- Worked in a team of five , responsible for web presence and social activities led by Student Alumni Relation Cell .
- Developed website for Placement Mentoring Program **(PMP)**, Alumni Student Mentorship Program **(ASMP)** using HTML, CSS, JavaScript , Bootstrap, and Django as a framework resulting **150 % y-o-y** increment of registrations and allotments
- Developed React Native **Mobile Application** , **Phonathon** which resulted in **300 % y-o-y** increment in the participation .

Technical Competions

Obstacle Manoeuvring Bot | Electronics and Robotics Club, IIT Bombay *(Jun '22)*

- Developed a wifi-controlled bot in a team of **4** and wrote the corresponding code for wifi-controller ESP32, in **Arduino IDE**
- **Soldered** a circuit consisting of standard electrical components such as ESP32, Buck converter, motors, etc .
- Designed the electrical circuit and constructed the base **model** of the bot using lab tools to optimise its structure .
- Completed the final track involving more than **10** different obstacles involving spiral staircase, marble dash, Slack bridge, rollers, Tire obstacles Zigzag Highway and obtained one of the best time record of **2 min 40 sec** among **140+** competitors

Technical Skills And Courses

- **Programming Languages :** C++, Python, C, HTML, CSS, JavaScript, MySQL LaTeX, Bash.
- **Frameworks/Libraries :** Django, React, Express.js, Node.js, Numpy, Pandas, Matplotlib, Bootstrap
- **Other Technical Skills :** MySql Workbench, SolidWorks, Autocad, Git, MATLAB, Android Studio, Excel
- **Key Courses :** Computer Programming and Utilization, Quantum Physics, Introduction to Electrical and Electronics Circuits, Electricity and Magnetism, Engineering Mechanics, Solid Mechanics, Thermodynamics, Fluid Mechanics, Strength of Materials, Mechanical Measurement, Manufacturing Processes I.
- **Coursera Courses :** AI For Everyone and Supervised Machine Learning: Regression and Classification .
- **Mathematics Courses :** Numerical Analysis, Calculus, Linear Algebra, Ordinary Differential Equations, Economics.

Extra-Curricular Activities

- Maintained a welcoming and organized atmosphere as a receptionist for the Convocation of Seniors. ('22)
- Achieved a **Black belt** in **Karate** from **Shito-Ryu School of india** after clearing all the stages of belts . ('18)
- Completed a year-long course under **NCC , IIT Bombay** as a cadet at 2 MAHR ENGR REG ('22)
- Coordinated the event Powai lake cleaning conducted by Abhyuday, IIT Bombay , in my fresher year . ('22)

Contact Details

- **Mobile no.** 8810250897
- **Email** 210100018@iitb.ac.in