

Ansh Preet
Mechanical Engineering
Indian Institute of Technology Bombay

210100018 B.Tech. Gender: Male

DOB: 15/11/2003

Examination	University	Institute	Year	CPI / %
Graduation	IIT Bombay	IIT Bombay	2025	7.24
Intermediate	CBSE	Kendriya Vidyalaya New Can't Allahabad	1 2021	97.60%
Matriculation	CBSE	Kendriya Vidyalaya New Can't Allahabad	1 2019	93.20%

SCHOLASTIC ACHIEVEMENTS _____

- Amongst top 3 percentile percentile of students in JEE out of 1+ million candidates across India and abroad
- Among the **top 1**% of candidates in **NDA-146** qualified for SSB Interviews among **0.4+ million** candidates .

Professional Experiences _____

Pedigraphy | SDE Intern

(May '24 - July '24)

(21)

(20)

A platform for creating and preserving family legacies and connections.

- Implemented a protocol for managing **dead** accounts and **merging** existing ones using **Neo4** for accurate family connections.
- Deployed a referral system with React and AWS, increasing user acquisition by 30 % through effective email outreach.
- Integrated backend with Firebase for data handling and used bcryptjs, JWT, and Joi for authentication and validation.
- Created 10+ APIs and used Cypher queries in Neo4j for complex relationship management and efficient data retrieval.

RichFeyn | Web Development Intern

(Jun '23 - July '23)

RichFeyn creates smart, automated solutions designed to simplify everyday life in modern households.

- Developed a responsive website with **Django** backend and frontend using **HTML**, **CSS**, **JavaScript**, and Bootstrap.
- · Collaborated with a 4-member team to design in Figma and deploy a user-friendly UI on AWS, matching brand identity.

KEY PROJECTS

StarkStyle | Software Development | Self Project

(Apr '24)

Designed and developed the StarkStyle eCommerce site for clothing.

- Built a responsive eCommerce site using MERN, with intuitive product display, cart management, and authentication.
- Built robust backend APIs with Express and Node.js, using MongoDB for secure product storage and user data.
- · Used Redux for state management, zod for validation, and implemented best practices for 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.

Algo Arena | Software development | Self Project

(Jan '24)

Created a coding platform allowing users to participate in contests, view real-time leaderboards, and track code execution.

- · Developed an algorithmic contest platform using Next.js, Express, Postgres, and Judge0 for secure code execution in AWS.
- Automated **boilerplate generation** for JS, C++, and Rust by integrating GitHub PRs to streamline template creation.
- Utilized Redis queues with Judge0 for asynchronous code evaluation and real-time submission status updates.

Flight Scheduling Optimisation | Course Project | Prof Avinash Bhardwaj | IIT Bombay

(May '24)

Developed a flight scheduling model to balance demand with constraints, enhancing efficiency and reducing wait times.

- · Employed recursive methods with backtracking in Python to restore flight status and explore all possible schedules .
- Enhanced the model with Linear Regression and Decision Trees, achieving an accuracy improvement to 91 %.
- Managed constraints like total flight limits, minimum flights per departure time, and passenger thresholds while balancing cost reduction, profit maximization, and minimizing passenger wait times through effective optimization strategies.

Sarcasm | Student Alumni Relation Cell | Dean ACR Office | IIT Bombay

(Jan'23)

SARC organizes Crypt Hunt, connecting students and alumni through a competitive event.

- · Developed a full-stack web application using **Django** 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.

OTHER PROJECTS

Texter | Software development | Self Project

(Feb '23)

Developed a Text Manipulation Web App

- Created a **Diango** app for text processing tasks, like punctuation removal, uppercase conversion, and space trimming.
- Integrated machine learning features, including sentiment analysis using TextBlob, language detection by languagetect for identifying text languages, and text summarization by using Hugging Face Transformers to generate concise summaries.
- · Designed a responsive frontend with HTML, CSS, and Javascript, incorporating real-time character count updates and interactive text analysis functionalities. Implemented a **copy-to-clipboard** feature to enhance usability and user experience.

BlogNext | Software Development | Self Project

(Dec '23)

Developed a comprehensive blogging platform.

- Developed a comprehensive blogging platform using React, Hono, Zod, JWT, Tailwind, Prisma, and PostgreSQL.
- Designed a complex schema with one-to-many, many-to-many, and self-relations to support dynamic user interactions.
- Deployed the backend on **Cloudflare Workers** and hosted the frontend on **Vercel** for scalable and responsive performance.
- · Implemented features for users to post, comment, tag blogs, and follow others, enhancing social interaction.

Alumination | Student Alumni relation Cell | Dean ACR Office | IIT Bombay

(Oct '22)

Alumination is a prestigious flagship event organized by the Student Alumni Relation Cell at IIT Bombay.

- · Worked in 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 .

Chat Application | Software development | Self Project

(Dec '22)

Built a chat application with real-time messaging and interactive communication features.

- · 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.

Positions of Responsibility

Web Coordinator | Student Alumni Relation Cell | Dean ACR Office | 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 SKILLS AND COURSES.

- Programming Languages: C++ | Python | HTML | CSS | JavaScript | MySQL | LaTeX.
- Frameworks/Libraries: React.js | Express.js | Node.js | Next.js | Django | Postman | Numpy | Pandas | Matplotlib.
- Other Technical Skills: MySQL | Git | MATLAB | Android Studio | Excel | Adams
- Key Courses: Computer Programming and Utilization, Quantum Physics, Introduction to Electrical and Electronics Circuits, Electricity and Magnetism, Operations Modeling and Analysis, Mathematical Methods in Engineering
- · 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

• Completed the 5.5 km race at the Hostel Crossy GC, organized by the sports council, representing Host	rel 2. ('23)
• Maintained a welcoming and organized atmosphere as a receptionist for the Convocation of Seniors.	('22)

- · Completed a year-long course under NCC, IIT Bombay as a cadet at 2 MAHR ENGR REG ('22)
- Developed a WiFi-controlled bot, achieving a top time of 2 min 40 sec among 140+ competitors. ('22)
- · Coordinated the event Powai lake cleaning conducted by Abhyuday, IIT Bombay, in my fresher year. ('22)
- · Achieved a Black belt in Karate from Shito-Ryu School of india after clearing all the stages of belts . ('18)