



## Ansh Preet

Mechanical Engineering  
Indian Institute of Technology Bombay

210100018  
B.Tech.  
Gender: Male  
DOB: 15/11/2003

Email: 210100018@iitb.ac.in Phone: +91 8810250897 LinkedIn GitHub

Examination	University	Institute	Year	CPI / %
Graduation	IIT Bombay	IIT Bombay	2025	8.76

### PROFESSIONAL EXPERIENCE

**NPCI** | Software Engineer [Aug'24 - Oct'24]

*Developed a visual simulator to ensure compliance with TPAP regulations.*

- Built a React-based visual simulator to validate **UPI** apps against NPCI's periodic compliance rules.
- Adopted by **4+** banks including Karnataka bank, reducing regulatory errors for **TPAPs** like Google Pay.
- Automated test case validation, minimizing integration issues and manual corrections.

**Pedigraphy** | SDE Intern [May'24 - July'24]

*A platform for creating and preserving family legacies and connections.*

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

### KEY PROJECTS

**NanoGPT** | GPT-2 from Scratch | Guided project [Feb'24 - Apr'24]

*Guided by: Prof Ajit Rajwade*

- Developed decoder only transformer using **124 million** parameters, used **Tiktoken** for encoding and decoding tokens
- Improved training speed by **3** times by switching computation from **FP32** to **TF32** and using AMP, which uses **BF16**
- Used optimized CUDA kernels through torch.compile() & **FlashAttention** to further reduce training times by **67 %**
- Used gradient clipping, fused AdamW optimizer and a lr scheduler to achieve a loss of **0.09** in 4 hours on google colab.

**Credit Worthiness Predictor** | Machine Learning Project | Course Project [July'24 - Aug'24]

- Conducted **EDA**, data cleaning, feature engineering, and **Chi-Square** test, correlation analysis for variable relationship
- Tested multiple classifiers, with Voting ensemble achieving best performance with **89 % F1** score, **83 %** Test Accuracy
- Used **GridSearch CV** for hyperparameter tuning, evaluated model with **F1** score, **Confusion** Matrix, and **AUC-ROC**

**BlogNext** | Software Development Project | Self Project [Oct'23 - Dec'23]

- 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** for serverless and the frontend on **Vercel** for scalable performance.

**Sarcasm** | Student Alumni Relation Cell | Dean ACR Office | IIT Bombay [Dec'22 - Jan'23]

- 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.

### POSITIONS OF RESPONSIBILITY

**Web Manager** | Student Alumni Relation Cell | Dean ACR Office | IIT Bombay [Jun'22 - May'23]

*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, resulting **150 % y-o-y** increment of registrations.
- Developed React Native **application**, **Phonathon** which resulted in **300 % y-o-y** increment in the participation.

### TECHNICAL SKILLS

- **Programming Languages** : C++ | Python | HTML | CSS | JavaScript | SQL
- **Frameworks/Libraries** : React.js | Express.js | Node.js | Next.js | Django | Postman | Numpy | Pandas | Matplotlib.
- **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 Hostel **Crossy GC**, organized by the sports council, representing **Hostel 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)
- Achieved a **Black belt** in **Karate** from **Shito-Ryu School of india** after clearing all the stages of belts. ('18)