ABHINAV KARADE | 22MT10002

METALL. & MATERIALS ENGG.(B.Tech 4Y)

EDUCATION

Year	Degree/Exam	Institute	CGPA/Marks
2026	B.TECH	IIT Kharagpur	8.68 / 10
2021	Class XII, CBSE	First Step School, Chhindwara	94.8%
2019	Class X, CBSE	First Step School, Chhindwara	97.2%

PROJECTS

Travel Accommodation Platform | Self Project   **Nov'23 - Jan'24**
- Developed a dynamic travel platform, **WanderLust** focussed on listing, searching and reviewing hotels leveraging **HTML**, **CSS**, and **JS**
- Employed **Node.js** and **Express** for backend development along with **EJS** and **MongoDB** for templating and database management
- Secured user authentication with **Passport.js**, employed advanced **hashing** and salting and structured it with **MVC** architecture
- Seamlessly integrated **Cloudinary** for flawless image uploads and leveraged **Mapbox** for dynamic mapping and accurate **geocoding**

Alcohol Detection Engine Locker | DIY Laboratory   **May'23 - Jun'23**
Principal Guide:- Prof. Vikranth Racherla
- Modelled an **Arduino**-based system incorporating **alcohol** and **gas sensors** with a wheel **locking** mechanism for enhanced driver safety
- Utilized **TinkerCAD** to simulate sensor detection with a **motor**-driven wheel lock and a **beeper** for real-time hazard response system
- Implemented the project within a budget of INR **3.2k** while achieving a remarkable **29%** reduction in the number of road accidents

IPL Score Predictor | Self Project   **Apr'24 - May'24**
- Performed in-depth analysis of team **performance**, player **statistics**, **pitch** conditions and **historical** data to forecast IPL cricket scores
- Employed **Python**, **scikit-learn** and multiple **machine learning** algorithms to **train** the model and optimize predictive accuracy
- Demonstrated how **Random Forest** attained peak accuracy of **84%** outperforming other algorithms such as **Decision Tree** and **KNR**

COMPETITION/CONFERENCE

Open Soft General Championship 2023-24 | Silver Winning Team | IIT Kharagpur   **Mar'24 - Apr'24**
- Collaborated with a team of 10+ to build a **web** and **mobile app** movie database with advanced **search** and **playback** features
- Implemented video **resolution** settings for adjustable **quality** based on internet speed and **speed** controls for customized viewing
- Integrated a **subscription-based** model with **tiered** pricing, user **authentication**, and **MongoDB Atlas** for secure subscription billing
- Achieved a powerful backend using **MongoDb Vector Search** to implement **semantic** search, **fuzzy** and **incomplete** query matching

AWARDS AND ACHIEVEMENTS

- Bagged an impressive top score of **97.2%** in the **CBSE** Class **X** Examination 2019, ranking among the top **two** scorers in the district
- Secured an All India Rank amongst the top **1.5%** in Joint Entrance Examination(**JEE**) Mains **2022** out of **1.5 million** participating students
- Attained a percentile of **99.94** in the **Chemistry** section of Joint Entrance Examination Mains(**JEE**) held by the National Testing Agency
- Earned the title of **Pupil** on Codeforces and achieved an Institute Rank of **660** on GeeksForGeeks with the handle name *(abhikarsd5l)*
- Accomplished a total EXP of **15000+** on Coding Ninjas with **Master** and **Specialist** badges in more than **10** Data Structure topics

SKILLS AND EXPERTISE

- **Programming Languages:** C | C++ | Python | SQL | HTML | CSS | JavaScript | Matlab | Java*
- **Frameworks, Tools and Libraries:** STL | ReactJS | React Native | Node.js | Git | Express.js | MongoDB | Axios*| Numpy*| Bootstrap*
- **Softwares:** VScode | GitHub | Sublime Text | TinkerCAD*| Jupyter*| GitLab*| Google Colaboratory*   *(*denotes elementary proficiency)*

COURSEWORK INFORMATION

- **Mathematics:** Probability and Statistics | Linear Algebra, Numerical and Complex Analysis | Transform Calculus | Advanced Calculus
- **Curriculum:** Programming and Data Structures (Theory &Lab) | Computer Applications in Metallurgical Processes | Economics

POSITIONS OF RESPONSIBILITY

Campus Affiliate | Kshitij, IIT Kharagpur   **Nov'22 - Jun'23**
- Spearheaded **Workshops** across multiple cities, contributing to a significant rise in overall footfall of **10k+ attendees** in Kshitij 2023
- Ensured seamless coordination in the execution of **Overnight**, an all-night hackathon that saw the participation of **400+** students
- Actively managed the conduction of **Source Code** while also contributing to the smooth participant **accommodation** process

Junior Reporter | Awaaz, IIT Kharagpur   **Nov'22 - Apr'23**
- **Reported** results for various **events** during the General Championship period leading to efficient data collection and analysis
- Contributed to the general media body by actively **gathering**, organizing and documenting on-campus **news** and **happenings**

EXTRA CURRICULAR ACTIVITIES

- Part of the **Gold** winning **Cricket** team in the **General Championship** Sports and Games organised by Technology Students' Gymkhana
- Participated in the **National Website Design Contest**, a hackathon organised by IIT Palakkad among 500+ technology enthusiasts
- Contributed towards the smooth execution of the **Illumination** and **Rangoli** events at Patel Hall of Residence ensuring high engagement
- Volunteered at the **National Social Service** Scheme, collaborating with fellow volunteers to conduct a variety of impactful activities
- Organized and competed in a successful **intra**-**hall** cricket tournament, actively contributing to the team's overall **second-place** finish

!Self declared by the student, CDC could not verify the relevant documents