NABIL RIZWAN | 22MI10041
Indian Institute of Technology Kharagpur
MICRO SPL. in ARTIFICIAL INTELLIGENCE AND APPLICATIONS

EDUCATION

Year	Degree/Exam	Institute	CGPA/Percentage
2026	B.Tech, MINING ENGINEERING	Indian Institute of Technology Kharagpur	8.43
2021	Class XII, Central Board of Secondary Education	S.T.S.V International School, Ara	86.8%
2019	Class X, Central Board of Secondary Education	Jean Paul's High School, Ara	92%

INTERNSHIPS AND PROJECTS

Social Determinants of Health | IIT Kharagpur   Feb'24 - March'24
- Developed **Social care Scorecard**, a data-driven tool assessing social support needs and health risk to connect individuals with services
- Used **clustering**, **LLM Prompting**, **embedding-based techniques** to autonomously categorize risk features and build hierarchical risk model
- Secured **Gold** with the team in the General championship Data Analytics 2024, organized by IIT Kharagpur in partnership with **Evva Health**

Metro Navigator | Self Project   April'24 - May'24
- Engineered a robust application, **Metro Path Finder**, to accurately find the **shortest routes** between metro stations precisely
- Implemented **Dijkstra's algorithm** and utilized advanced **data structures** for efficient handling and processing of metro stations
- Integrated **interactive features** allowing users to select stations, view route maps, estimate fare costs, and explore travel options
- Enhanced functionality that allows users to add an **intermediary stop** between the source and target stations, improving route flexibility

Movie Recommendation System | Self Project   April'24 - May'24
- Conducted thorough EDA on **TMDB 5000** movie dataset, focusing on data cleaning and detailed visualization for comprehensive insights
- Extracted essential movie details such as plot, cast information, directors, ratings & popularity scores to facilitate **content-based filtering**
- Utilized **Bag-of-Words (BOW)** and **Tf-Idf** techniques to vectorize tags, employing cosine similarity for recommending top similar movies
- Implemented deployment of the Movie Recommender system using **Streamlit** to provide a seamless and user-friendly interface

AI Chatbot | IAS Prakhar Singh   July'24 - Aug'24
- Developed an AI chatbot using **LangChain** and **OpenAI's language model** to accurately respond to complex and diverse user queries.
- Integrated PDF processing with **PyPDF2** to enhance the chatbot's utility for handling document-based queries and user interactions.
- Demonstrated effective use of AI and ML to address real-world problems in **tourism** and **government documen**t processing efficiently.

SKILLS AND EXPERTISE

- **Programming Languages and Software:** Python, C++, C, HTML, CSS, SQL, VS Code, Jupyter notebook, Google collab
- **Frameworks and Libraries:** Pandas, Numpy, Matplotlib, Opencv, Langchain, XGBoost, Pypdf2, Keras, Pillow, Streamlit, Bootstrap

COURSEWORK INFORMATION

- Deep Learning
- Machine Learning
- Programming and Data Structures
- Probability and Statistics
- Linear Algebra
- Advance Calculus

POSITIONS OF RESPONSIBILITY

Executive Head | Public Policy and Governance Society | IIT Kharagpur   May'23 - Present
- Facilitated the acclimatization of **100+ freshman** to the institute's environment by helping in organizing a meet-up
- Organized many seminars with **IAS officers**, addressed over **500+** students, fostering knowledge exchange and career insights.
- Guided and Mentored **50+ freshmen** students with a team in acclimatizing to the Environment of the Institute

Associate Member | Technology Mining Engineering Society | IIT Kharagpur   Dec'22 - Aug'23
- Part of the organizing team for India's Largest Departmental Fest, **Great Step 2022**, ensuring a successful event
- Managed accommodation for over **500 students** from other colleges during the Great Step event
- Organized events like **safety data analytics**, geo biotics, safety hunt, and mineo case study at Great Step

AWARDS AND ACHIEVEMENTS

- Secured a position among **top 4%** in the Joint Entrance Examination(JEE) Advance 2022 among more than 170000 students
- Secured a position among **top 0.5%** in the Joint Entrance Examination(JEE) Mains 2022 among more than 900000 students
- Currently hold the Department Rank **5** among 100+ students of the MI department and also was the **CR** in 4th semester

EXTRA CURRICULAR ACTIVITIES

- Actively involved in the construction of the **Silver** winning Illumination of Lala Lajpat Rai Of Residence in November 2023.
- Participated in Inter Hall **Badminton tournament** conducted by Technology students' Gymkhana with Lala Lajpat Rai Hall of Residence
- Attended **Disaster Management programme** covering basics of Rescue Techniques, First aid, Fire Fighting, and Rehabilitation Work
- Attended the **Swatch Bharat** abhiyan organised by NSO health and fitness with my teammates of my unit 11
- Participated in Intra-Hall **Cricket Tournament** organised by Lala Lajpat Rai Hall of Residence in March 2023