Mamun Chowdhury
UG (III Year I Semester)
Integrated M.Tech. Geophysical Technology
Contact No: 9232468244
Email: mamun_c@es.iitr.ac.in
Registration No: 23411024/2026

Indian Institute of
Technology
Roorkee

Area of Interest

Exploration Geophysics and Subsurface Exploration

Education

Year	Degree/Examination	Institution/Board	CGPA/Percentage
2024	Int. M.Tech 2nd Year	Indian Institute of Technology, Roorkee	7.483
2023	Intermediate (Class XII)	JAWAHAR NAVODAYA VIDYALAYA, MURSHIDABAD	93.00 %
2021	Matriculate (Class X)	JAWAHAR NAVODAYA VIDYALAYA, MURSHIDABAD	95.80 %

Projects

Credit Card Behavior Score Prediction using Risk-Based Classification | IIT ROORKEE   April 2025 - June 2025
- Built classification models (Logistic Regression, Random Forest, XGBoost) to predict credit card behavior scores. Engineered risk features from transactions and demographics, optimizing for F2 score to prioritize high-risk recall. Performed EDA, threshold analysis, and delivered insights on customer segmentation and delinquency patterns for proactive credit risk management.

3D Gravity Inversion of Subsurface Density Variations | IIT Roorkee   February 2025 - March 2025
- Performed 3D gravity inversion to estimate subsurface density variations from observed Bouguer gravity anomaly data using the SimPEG Python library.
- Built and validated numerical models of geological structures, interpreting results to identify zones of mineralization or basin structures.
- Applied forward and inverse modeling techniques, regularization methods, and sensitivity analyses to improve inversion stability and resolution

Smart Product Pricing Ml Challenge 2025 | Amazon   October 2025
- Multimodal Price Prediction using Text + Images + Stacking Ensembles This repository contains my complete solution for the ML Challenge 2025 Smart Product Pricing, where the goal is to build a model capable of predicting product prices using only product text, catalog descriptions, and product images, without any external data or price lookup. The task involves 150,000 products (75k train + 75k test) and requires a robust multimodal regression model. My final solution is a hybrid ensemble system that uses text embeddings + TF-IDF + image embeddings + gradient boosting models combined through a stacking meta-model.

Awards / Scholarships / Academic Achievements

- DAKSHANA Scholarship Programme 2023
- JNV Regional Chess 2019
- Silver Medel at Colors Trophy , IIT Roorkee (Hockey)

Skills

Computer languages	C++, Python, HTML, CSS, JavaScript
Software Packages	MATLAB, PyTorch, Pandas, ScikitLearn, Solidworks
Additional Courses	Introduction to Cognitive Science, Introduction to Climate Change
Languages Known	Hindi(SRW), Bengali(SRW), English(SRW)

Positions of Responsibility & Extra Curriculars

Executive Member | Himalayan Explorers' Club, IIT Roorkee   November 2024 - Present
- Fosters adventure and exploration, organizing treks, expeditions, and outdoor activities, inspiring students to discover nature, build endurance, and develop leadership skills.

Member | NSO (Hockey), IIT Roorkee   August 2023 - Present
- Promotes physical fitness and sportsmanship among students by offering structured training in various sports, fostering discipline, teamwork, and a healthy lifestyle.

Junior Associate | THOMSO, IIT Roorkee   September 2023 - December 2023
- Embodies the spirit of creativity, cultural diversity, and youthful exuberance, making it a hallmark event in the Indian collegiate festival landscape.