



EDUCATION

Year	Degree/Exam	Institute	CGPA/Percentage
2027	Dual Degree, Electrical Engineering	Indian Institute of Technology Kharagpur	8.39
2022	Class XII, AISSCE	D.A.V. Public School, Kolkata	95.8%
2020	Class X, AISCE	D.A.V. Public School, Kolkata	97.6%

INTERNSHIPS AND PROJECTS

Machine Learning Intern | Nov'23-present

Chi SquareX Technologies

- Worked on developing a YOLOv8 model on Roadside Object Detection_for **National Highways Authority of India**
- Developed and worked on different machine learning models based on Computer Vision and Natural Language Processing including **UNet and SegNet for Semantic Segmentation, HuggingFaceAPIs like OPUS-MT for Machine Translation and PoseNet for Human Pose Detection**
- Deployed models using Python library Gradio

Research Intern (National University of Singapore) | Jan'24-present

Prof. Mehul Motani

- Working on a project based on RAG and LLM finetuning to meet the needs of patients in a nearby multispecialty hospital by providing specialized content using Open Source LLM models on HuggingFace
- Researching on methods based on different NLP techniques to prevent LLMs to stop hallucinating during inference time

Demand Prediction at popular tourist places in India | Sep'23 - Oct'23

Open IIT Data Analytics 2023

- Collected data from different websites regarding monthly tourist arrivals to popular places like Goa, Shimla
- The data underwent scaling, and features were engineered using Partial Auto-Correlation Factor (PACF) plot
- Obtained R2 scores around 0.9 using different models like **XGBoost, CATBoost, Random Forest**, implemented **Prophet** on each dataset and minimized RMSE scores
- Link to project (https://docs.google.com/document/d/1b84R-a_3Q_RJT_tDmcD5ezDm8xPyG5q1ICDhMHo7GmQ/edit?usp=sharing)

Supernovae Classification using Astronomical Data | Feb'24

Stellar Analytics, Technex

- Developed a stacked classification model using **XGBoost, CATBoost** and **Multi-Layer Perceptron** to classify supernovae into 7 categories
- Performed **EDA** and processed data using various feature engineering techniques like **SMOTE** and **PCA**
- Used cross-validation techniques like **Stratified K-Fold** and hyperparameter tuning to achieve an accuracy of **99.98315%**.
- Link to report (https://docs.google.com/document/d/1owcCLl68n2gHPYLZCImPx0vFAvNhCNYD9RKnK_302kQ/edit?usp=sharing)

SKILLS AND EXPERTISE

- Programming Languages:** Python | C++ | C | HTML | CSS | Javascript
- Frameworks and Libraries:** Numpy | Matplotlib | Seaborn | Pandas | React | Bootstrap | Tensorflow | Scikit-Learn
- Software Packages:** Microsoft Excel | Canva | SolidWorks | LTspice | Fusion360 | Google Cloud Platform | HuggingFace

COURSEWORK INFORMATION

- Probability and Statistics
- Supervised Learning
- Programming and Data Structures
- Deep Learning
- Advanced Calculus
- Linear Algebra, Numerical and Complex Analysis

POSITIONS OF RESPONSIBILITY

Kharagpur Data Analytics Group | Student Member

Aug'23 - present

- Helping in the organization of **Kharagpur Data Science Hackathon**, an annual event by KDAG aimed at fostering innovation and collaboration in the field of data science

- Hosted the grand finale of **Kharagpur Data Science Hackathon** with 6000+ registrations at Asia's largest techno-management fest, Kshitij

Student Welfare Group | Web Team

Dec'22 - July'23

- Managed events like **DepC Talks, Career Orientation Session** for academic welfare of students
- Helped building and managing the SWG website, especially the **CV Repo** Section added which contains the CV's of students who have been selected for internships and placements from CDC

AWARDS AND ACHIEVEMENTS

- Secured All India Rank of 2117 in JEE Advanced 2022.
- Secured All India Rank of 3258 in JEE Mains 2022.
- Secured All India Rank of 163 in WBJEE 2022.

EXTRA CURRICULAR ACTIVITIES

- Keyboardist at **Eastern and Western Technology Music Society**, IIT Kharagpur.
- General Championship 2024 (Eastern Instrumentals and Western Instrumentals)