



EDUCATION

Year	Degree/Exam	Institute	CGPA/Marks
2024	M.TECH	IIT Kharagpur	8.78 / 10
2021	B.TECH	JAMIA MILLIA ISLAMIA	9.04 / 10
2017	Intermediate Examination	U.P. Board	77.80%
2015	Secondary School Certificate	I.C.S.E	81.33%

PROJECTS

Landslide Prediction Using Machine Learning [Aug '23 - Present]

M.Tech Thesis | Prof. Abhishek Kumar Rai, CORAL, IIT KGP

- The main objective of this project is to develop an **ML** model that can predict whether a landslide is going to happen or not
- Conducted Exploratory data analysis to extract valuable insights from landslide data and identify various key parameters
- Tools/Technologies Used: **Python, Scikit-Learn, NumPy, Pandas, Matplotlib, Seaborn, Confusion Matrix, Jupyter, QGIS**

Duplicate Question Pair Detection Using Machine Learning [Mar '23 - Apr '23]

- The aim of the project was to develop an **ML** model capable of classifying question pairs as either duplicate or non-duplicate
- Generated some unique features with the help of existing features of dataset to enhance the performance of the model
- The Machine Learning algorithms employed were **Support Vector Machine, Decision Tree, Random Forest, and XGBoost**
- Models were assessed using **Confusion Matrix** and **Accuracy score** where **XGBoost** outperformed with **77.6%** accuracy
- Tools/Technologies Used: **Python, NumPy, Pandas, Matplotlib, Seaborn, Scikit-Learn, NLTK, Confusion Matrix, Jupyter**

Machine Learning-Driven Placement Forecasting [Feb '23 - Mar '23]

- The objective of this project was to develop an **ML** model that can predict whether a student is going to be placed or not
- Data was gathered through a Google Form survey and EDA was performed to extract insights and identify important features
- Three classification algorithms (**Logistic Regression, Decision Tree, and Random Forest**) were employed in the analysis
- Random Forest** exhibited superior performance with an accuracy of **89.99%**, outperformed the other two algorithm handily
- Tools/Technologies Used: **Python, Scikit-Learn, NumPy, Pandas, Matplotlib, Seaborn, Confusion Matrix, Jupyter**

INTERNSHIPS

Data Science Intern | Maritime Research Center [May '23 - Jul '23]

Project Title- Machine Learning-Based Estimation of Nutrient Concentration for Rivers

- The project aimed to develop a Machine Learning model capable of predicting nutrient concentrations in the Ganga River
- Due to the less data available in the Ganga River, Aitoutan watershed data was used to train the **Artificial Neural Network**
- Applied Transfer Learning on the pre-trained **Artificial Neural Network** model using the Ganga River dataset.
- The model was evaluated using the **R-squared** score, where the model was able to achieve an **R-squared** score of **0.76**
- Tools/Technologies Used: **Python, NumPy, Pandas, Matplotlib, Seaborn, Scikit-Learn, TensorFlow, Jupyter**

Data Analyst Intern | Gurucool [Jan '23 - Mar '23]

- Analyzed the data given by the organization, delivered valuable insights, and performed web scraping to obtain relevant data.
- Conducted data cleaning operations on extensive datasets of study materials to ensure efficient management and usability
- Designed comprehensive data science coursework for aspiring learners, ready to be shared on Gurucool platform **Padhaai**
- Tools/Technologies Used: **Python, NumPy, Pandas, Matplotlib, Seaborn, Microsoft Excel, Web Scraping, Jupyter**

SKILLS AND EXPERTISE

Programming Languages: C, Java, Python **Softwares:** Visual Studio Code, Jupyter, Microsoft Excel, MySQL, IntelliJ IDEA

Technical Knowledge: Statistics, Machine Learning, Deep Learning, Natural Language Processing, Git/Github

Python Libraries: NumPy, Pandas, Matplotlib, Seaborn, Plotly, Scikit-Learn, TensorFlow, Flask, NLTK, BeautifulSoup

COURSEWORK INFORMATION

Data Analytics | Computational Methods | Design Lab | Statistical and Machine Learning Methods | Simulation Lab | Remote Sensing | Geophysical Fluid Dynamics | Carbon Cycle and Global Climate Change | Fundamental of Computing | Numeric and Scientific Computing | Marine Resources and Exploration Methods | Global Climate System and Cloud-Precipitation Processes

AWARDS AND ACHIEVEMENTS

- Secured All India Rank **602** in GATE(XE) 2022
- Solved **200+** coding problems on **CodeChef** (user_id: <https://www.codechef.com/users/athar1999>)
- Earned **5** stars in **SQL** and **5** stars in **Python** on **HackerRank** (user_id: <https://www.hackerrank.com/14athar1999>)

POSITIONS OF RESPONSIBILITY

Design Head of the Team | Quad Bike Designing Challenge (QBDC) 2019

- Mentored **5** freshmen students in understanding Quad bike chassis design and used AutoCAD for vehicle component design