



EDUCATION

Year	Degree/Exam	Institute	CGPA/Marks
2024	M.TECH	IIT Kharagpur	8.77 / 10
2019	Bachelor of Engineering	Rashtrasant Tukdoji Maharaj Nagpur University	9.13 / 10
2015	Higher Secondary School Certificate	Maharashtra Board	83.23%
2013	Secondary School Certificate	Maharashtra Board	90.36%

INTERNSHIPS

Maritime Research Center, Pune | Data Science Intern

[May'23 - Jul'23]

- Conducted extensive data analysis using various techniques on Ocean Data, discovering hidden patterns of climate change in ocean data.
- Leveraged Python programming along with **Numpy**, **Pandas**, **Seaborn**, and **Scikit-learn** libraries to create a machine-learning model with a high **R2 score** of **0.95** for predicting ocean pH values.

PROJECTS

Flood Forecasting with Machine Learning Models | M.Tech Thesis | Prof. Abhishek Kumar Rai, CORAL, IIT KGP [Jan'23 - Present]

- Focusing on developing a machine learning model to provide accurate real-time flood warnings to agencies and the public.
- Created flood vulnerability maps for Bihar using ArcMap and satellite data, assessing potential risks and impacts accurately.

Airline Passenger Segmentation | Prof. Aritra Hazra, Dept. of CSE, IIT KGP | Link

[Jul'23 - Aug'23]

- Analyzed airline customer behavior data, employing various data preprocessing techniques and exploring the feature statistics.
- Implemented the K-means clustering algorithm from scratch, leveraging cosine similarity to measure data point similarity.
- Evaluated clustering performance with an impressive Silhouette score of **0.85**, providing insights into data separation quality.

Email Spam Filtering | Machine Learning | Prof. Aritra Hazra, Dept. of CSE, IIT KGP | Link

[Jan'23 -Feb'23]

- Developed a comprehensive predictive model, achieving an impressive **89%** accuracy through meticulous construction and refinement.
- Implemented a **Naive Bayes Classifier** to predict email spam, enhancing accuracy and filtering unwanted messages effectively for users.
- Applied text-preprocessing techniques, including the removal of stop words and stemming, to enhance the overall performance.

Polydipsia Prediction | Prof. Aritra Hazra, Dept. of CSE, IIT KGP | Link

[Mar'23 - Apr'23]

- Developed Gaussian Naive Bayes model achieving **79%** accuracy predicting polydipsia likelihood in patients from scratch.
- Conducted thorough data analysis, preprocessing, and feature exploration to enhance polydipsia prediction model performance.
- Implemented k-fold validation to enhance model's predictive capabilities based on diagnostic results and patient conditions validation.

Abusive Text Classification | Prof. Aritra Hazra, Dept. of CSE, IIT KGP | Link

[Apr'23 - May'23]

- Implemented machine learning models, including KNN and LSTM Neural Network, for classifying abusive text in Hindi language messages.
- Achieved accuracy rate of **64%** with the KNN model and improved the rate to **78%** using LSTM model.
- Performed data preprocessing, eliminating stop words, emojis, and digits, to ensure data quality and facilitate robust model training.

COURSEWORK INFORMATION

Data Analytics | Machine Learning | Deep Learning Foundations and Application | Design Lab | Computational Methods for Earth System Science | Atmospheric Dynamics | Geophysical Dynamics | Satellite Remote Sensing and GIS | Carbon Cycle and Global Climate Change

SKILLS AND EXPERTISE

Programming Languages: Python | SQL

Softwares: ArcGIS | QGIS | Word | Powerpoint

Web Framework: Flask* | Streamlit*

Cloud Platform: AWS*

Libraries/ Framework: Numpy | Pandas | Matplotlib | Seaborn | Plotly* | Scikit-Learn | NLTK | Tensorflow | Keras

Expertise: Exploratory Data Analytics, Data Science, Machine Learning, Advanced Deep Learning *Elementary proficiency

CERTIFICATIONS

- Machine Learning:** Probability and Statistics | Mathematics | Supervised | Unsupervised | ML Algorithms | Deep Learning
- Python:** VSCode | Data Structures | Computational Complexity | Object Oriented Programming.
- Successfully cleared the assessment for the skill in essential **SQL**.

AWARDS AND ACHIEVEMENTS

- Secured **96.34** percentile with AIR **3282** in **GATE(ME) 2022** among 89,567 candidates.
- Secured **University Rank of 9th** during the final (8th) semester of B.E. in the 2019 Rashtrasant Tukdoji Maharaj Nagpur University exam.
- Awarded a certificate of merit for securing **2nd position** in the department in the 3rd semester of B.E. in the winter 2016 Rashtrasant Tukdoji Maharaj Nagpur University exam.
- Bagged **2nd Position** in Paper Presentation on Corn Shelling Machine Project in National Conference, Spark-2019 in Karmaveer Dadasaheb Kannamwar College of Engineering, Nagpur.

EXTRA CURRICULAR ACTIVITIES

- Represented CORAL As an Academic Unit Representative at **Academia-Industry Conclave 2023**.
- Participated in **Annual Training Camp** and **Republic Day Camp** selection 2011 at Ordnance Factory Ambajhari Nagpur and attained **A Level Certificate** in **National Cadet Corps** in 2012-13.