Tushar Mitra

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SUMMARY

Motivated 3rd Year Engineering Student specializing in the domain of Data Science and its related fields with hands-on experience. Love learning new technologies and implementing them. Strong problem solving and analytical skills. Proficiency in different technologies.

EDUCATION

Kalinga Institute of Industrial Technology, Bhubaneswar, Odisha, India

Bachelor of Technology in Computer Science and Engineering

(2022-2026)

CGPA: 9.33

Loyola High School, Patna, Bihar, India

Central Board of Secondary Education (CBSE)

(2009-2021)

10th Score: 95% 12th Score: 91.8%

WORK EXPERIENCE

AICTE-EduSkills Virtual Internship

July 2024-August 2024

- Gained invaluable knowledge about Machine Learning and Deep Learning, but particularly focusing on Convolutional Neural Networks (CNN) and Object Detection using RCNN and YOLO models.
- Learned how to classify objects into different groups and find which group a new object belongs to, and later checking the accuracy
 and loss of the trained model.

PROJECTS

Diamond Price Prediction [Project Link]

August 2024

- Used a dataset from Kaggle and trained the model using several machine learning regression algorithms from the 'Scikit-Learn' library
- Performed Feature Engineering and data preprocessing on the dataset. Implemented pipelines using libraries like 'Pipeline' and
 'Column Transformer'. Checked the accuracy of different algorithms using MSE, MAE & RMSE and chose the algorithm with the
 best accuracy for the ML model.
- Used 'Gradio' library to make an interface for executing the project. Hosted the project on 'Hugging Face'.

Credit Card Fraud Detection [Project Link]

October 2024

- Used a dataset from Kaggle and trained the model using several machine learning classification algorithms from the 'Scikit-Learn' library.
- Performed Feature Engineering and data preprocessing on the dataset using several python libraries and performed hyperparameter tuning on all the algorithms used. Checked the accuracy of different algorithms using accuracy score, confusion matrix and classification report and chose the algorithm with the best accuracy for the ML model.
- Used 'Gradio' library to make an interface for executing the project. Hosted the project on 'Hugging Face'.

ETL Pipeline Implementation [Project Link]

November 2024

- Implemented an ETL Pipeline using 'Apache Airflow', 'Astronomer', 'PostgreSQL' and 'Open Meteo API'.
- Used these technologies to Extract weather data with the help of 'Open Meteo API', Transform the weather data and then Load the weather data into a 'PostgreSQL' database. Thus, implementing the 'Extract-Transform-Load' pipeline(ETL Pipeline).
- Implemented Airflow DAGs and added HTTP and PostgreSQL connections using HTTP Hooks and PostgreSQL Hooks. Finally, used
 'dbeaver' software to initiate a database connection to the PostgreSQL database and ran SQL Script to view the contents of the data
 stored in the database.

SKILLS

Technical Skills

C • Java • Python • Machine Learning • Deep Learning • Object Detection • Computer Vision • SQL • HTML • CSS • Pipeline • Docker

Soft Skills

Teamwork • Leadership • Communication • Problem Solving • Critical Thinking