Tushar Mitra

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SUMMARY

Results-driven 3rd Year Engineering Student specializing in the domain of Data Science and its related fields with hands-on experience. Passion for learning new technologies and implementing them. Proficiency in different technologies. Adept at problem-solving, communication, and teamwork.

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: 93.67%

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.
- 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. Finally, 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. Finally, Hosted the project on 'Hugging Face'.

Vision-based Attendance System [Project Link] December 2024

- Implemented a Vision-based Attendance System using 'OpenCV' library. It has 3 files. The first file adds faces associated with a name to the dataset. The second file recognizes a face and adds the name and timestamp to a dated csv file. The third file opens a Streamlit web app to display all the dated csv files with attendance of different dates.
- Used a 'haarcascade frontal face classifier model' for face detection.

Talk with Pdf [Project Link] January 2025

- Used Google Gemini API Key to implement a Gen AI LLM Application which lets users upload multiple PDFs and later chat with the PDFs to extract relevant required information.
- Used different langchain libraries for developing the application. Also used FAISS(Facebook AI Similarity Search) for vector database. Finally, Hosted the Application on Streamlit Community Cloud.

SKILLS

Technical Skills

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

Soft Skills

Teamwork • Leadership • Communication • Problem Solving • Critical Thinking