

# MIRARANI CHOUDHURY



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**Career objective:** Being a dynamic data scientist, Seeking a position where I can utilize my expertise in data manipulation, statistical analysis, and machine learning to address real-world challenges and drive data-centric solutions.

## Work Experience:(2022-present)

- ☐ Currently working in C-DAC as Knowledge Associate(July 2022 - present)
  - Installed and configured the osquery API on host machines to communicate with the Distributed Query Server machine and collected data of running processes from different host machines using osquery API for machine learning model and stored in the server machine.
  - Developed a model to identify anomaly behavior of network (static data) using ML algorithms.

## Project Details :

- Trust score calculation for Zero Trust network using Machine learning algorithm (2023-present)**  
**Objective** - To enhance the security and effectiveness of the Zero Trust architecture by providing an automated and dynamic assessment of the trustworthiness of entities within the network. Also, to strengthen the Zero Trust principles of "never trust, always verify" by leveraging machine learning to continuously evaluate and adjust trust levels based on real-time data and behavior analysis.
- Network traffic classification using ML classification technique (M.Tech(Internship))**  
**Objective:** To classify different types of traffic ML classification algorithms and build a model using the best ML algorithm. By learning patterns of normal and anomalous behavior, 6 algorithms(LSTM, RNN, ANN, Supervised Algorithms) have been taken and compared on the basis of accuracy.
- End to End MLOPS Project Deployment with MLFLOW and integration with AWS**  
Dataset- Kaggle wine quality dataset  
Tools used- Git lab, MLOPs pip line, VS code
- Text extraction from Invoice image using paddleOCR with confidence score**  
**Tools used:** PaddleOCR, OpenCV

## Publications: [Network Traffic Classification Using Supervised Learning Algorithms \(IEEE ICCECE 2023 \)](#)

**Description:** Network traffic classification is needed for identification of intrusion networks and classification of different types of applications. ML algorithms play a crucial role in classification purposes.

Link: <https://ieeexplore.ieee.org/document/10084931/keywords>

## Education :

- 🎓 Mtech ||Power system ||NIT Durgapur ||8.55||2021-23
- 🎓 Btech ||Electrical Engineering ||Parala Maharaja Engineering College ||8.03|| 2013-17
- 🎓 XII ||Science ||SSVM. Neelakantha Nagar ||74%|| 2011-12
- 🎓 10<sup>th</sup>|| SSVM, Hinjilicut ||87%|| 2009-10

## Area of Expertise:

**Technical skills:** Machine Learning, NLP, SQL, python, Git,YoLo V5, Tensorflow

**Area of interest:** Computer Vision, Machine Learning, Data Science

**Soft skills:** Leadership, communication, Adaptability, Exploring new emerging technologies

## Achievements:

- 🏆 Got 1st prizes in Science quiz competitions in school and also selected for State Level Quiz.
- 🏆 Selected for Mathematics Olympiad and also qualified GATE twice