KARANJIT SAHA

International Institute of Information Technology, Bangalore

📞 +91 9024993020 ✉ [Email](#) in [LinkedIn](#) ⚲ [GitHub](#)

Education

IIIT Bangalore   **November 2020 – June 2025**
Integrated B.Tech+M.Tech in Computer and Science Engineering   ***CGPA :*** *3.51/4*

Experience

IIIT Bangalore   **June 2022 – July 2022**
Summer Research Internship under Prof. Amit Chattopadhyay   *IIIT Bangalore, Bangalore, Karnataka*
- Applied KMeans on multidimensional data using L_p - norm distance for various values of p.

Mentorship

Teaching Assistant   **January 2023 – Present**
Design and Analysis of Algorithms   *IIIT Bangalore*
- Responsible for taking tutorials, and evaluating the exams and assignments of the iMTech. 2021 batch for the course Design and Analysis of Algorithms.

Projects

Course Recommender System | *numpy, sklearn, matplotlib, pandas*   **February 2023 – March 2023**
- Created a course recommender system using a real life dataset obtained from the students currently enrolled in IIIT Bangalore.
- Used Collaborative Filtering based techniques to design our recommender system. Used KMeans and SVD for enhancing the system further.
- Did it in a group of 4.

Pothole Severity Classification | *Python, opencv, Agisoft Metashape*   **January 2023 – January 2023**
- We built a program that can take a video of the road as an input and can detect the potholes and measure their severity using Computer Vision techniques.
- The Project was build for the SMARTATHON Challenge 2023 theme 2 (Pothole Severity Classification via Computer Vision).
- Trained the YOLOv7 model for pothole detection and helped in the documentation of the project.
- Did it in a group of 6.

Yahoo Troll Question Detection | *sklearn, spaCy, nltk*   **October 2022 – December 2022**
- An NLP-based project which detects if a given text is a troll question or not using various binary classifiers.
- Implemented various models for binary classifications(Logistic Regression, SVM, KNN, XGBoost,ADABoost, etc.) and did hyperparameter tuning.
- Done in a group of 2.

Clustering Project | *Python, pandas, numpy*   **June 2022 – July 2022**
- Clustering multidimensional points based on L_p-norm distance using KMeans and comparing the results for various values of p.
- Written KMeans algorithm from scratch using numpy and pandas.
- Did it in a group of 2.

Technical Skills

Languages: Python, Java, C, C++, Flutter, JavaScript, LaTex
Technologies/Frameworks: Linux, Jenkins, GitHub, ReactJS, pytorch, sklearn, pandas, numpy, tensorflow, matplotlib, opencv.

Relevant Coursework

- Data Structures and Algorithms
- Design and Analysis of Algorithms
- Operating Systems
- Database Systems
- Mathematics for Machine Learning
- Machine Learning

Achievements

- Won First prize in [Byte Synergy Hackathon 2022](#) in the Open Innovation track for [ShareCab](#)   .
- Got 99.73 percentile in JEE Mains.