ANIK ACHARYA

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EDUCATION

The ICFAI University **October 2021 - Present**
4th Year Undergraduate, Dept. of Computer Science & Engineering Current GPA: 9.02/10.0

EXPERIENCE

Indian Institute of Space Science & Technology **June 2024 - July 2024**
Project Intern Trivandrum, Kerala

- I have worked on a research project focused on individual tree detection using **Terrestrial Laser Scanning (TLS)** data and machine learning techniques.
- First I collected the TLS data and convert it into a 3D point cloud format using **LiDAR** technology.
- Then I Applied the **DBSCAN** clustering algorithm to identify and segment individual trees from the point cloud data.

Tripura Institute of Technology **June 2023 - July 2023**
Summer Intern Agartala, Tripura

- Applied machine learning concepts using various tools to solve real world challenges encountered in the internship.
- Analyzed datasets employing **NumPy**, **Pandas**, and **Matplotlib**, deriving meaningful insights during the internship.
- Acquired foundational knowledge encompassing basic principles of **Drone Technology** during the internship.

PROJECTS

TreeSegg **June 2024 - July 2024**

- I have Applied the **DBSCAN** algorithm for segmenting the point cloud data to detect individual trees.
- Extracted geometric features like tree height,crown diameter, Diameter at Breast Height(DBH) for each segmented tree.
- These features can be used to find **Above Ground Biomass (AGB)**, which is very important for understanding the carbon cycle of a tree and improving forest planning and management.

Potato Doctor **November 2023**

- Developed a **Convolutional Neural Network** model using TensorFlow for precise classification of potato diseases.
- Applied preprocessing, trained CNN to distinguish potato diseases, achieving high accuracy in disease identification.
- Used Matplotlib to visualize model metrics (accuracy, loss), aiding analysis of the classification system's effectiveness.

Estate Guru **October 2023**

- Applied **Linear Regression** with NumPy and Pandas for accurate real estate price prediction and data handling.
- Utilized Matplotlib for visualizing key insights, including regression lines, coefficients, and model evaluation metrics.
- Used historical data in Linear Regression for accurate real estate price predictions, enhancing the precision of price estimation models.

Cinemax: Movie Suggestions **September 2023**

- Developed a Movie Recommender System using cosine similarity, optimized data processing with NumPy and Pandas.
- Applied **Scikit-learn** for movie cosine similarity, enhancing personalized recommendations based on user preferences.
- Integrated **Streamlit** for creating an interactive web application, providing an intuitive interface for users to explore.

TECHNICAL SKILLS

Programming Languages: Python, C, C++, HTML, CSS, JavaScript
Developer Tools: VS Code, PyCharm, Google Cloud Platform, GitHub, Fugro Viewer, Google colab
Frameworks/Libraries: Numpy, Pandas, Tensorflow, Keras, Matplotlib, Seaborn, Scikit-learn, Git, Streamlit
Interests: Data Science, Machine Learning, Deep Learning, NLP, SQL

KEY POSITIONS

- **Google CloudReady Facilitator Program 2022**
- **Campus Ambassador, E-Cell, IIT Guwahati 2023**