AGRADWIP KARMAKAR

Durgapur, WestBengal
+91-7063212027 karmakaragradwip02@gmail.com www.linkedin.com/in/agradwip-karmakar-0b40b2225/

EDUCATION

National Institute of Technology, Durgapur **2020 – 2024**
Bachelor of Technology in Electrical Engineering *Durgapur, WB*

COURSEWORK / SKILLS

- Data Structures & Algorithms
- C++/Python
- Machine Learning
- Object Detection YOLO
- SQL

PROJECTS

Developed a CNN Model for Rice Seed Image Classification using TensorFlow |

- Built and trained a CNN model using **TensorFlow** on the Rice Image Dataset.
- Achieved **95.22%** accuracy, **91.58%** precision, **87.53%** Kappa, and **90.2%** recall, demonstrating high classification performance.
- Utilized **Scikit-Learn**, **NumPy**, and **Pandas** for dataset preprocessing, manipulation, and evaluation.
- Tracked model and metrics using **MLFlow** and **DagsHub** for efficient experiment management.
- Integrated **DVC** for pipeline tracking and deployed a Flask app with **HTML** and **CSS**.
- Executed the project in **VSCode** using **Python**, leveraging NVIDIA CUDA for GPU acceleration.
- **Project Link:** GitHub Repository — **MLFlow:** DagsHub MLFlow

Developed a CNN Model for Intel Image Classification using PyTorch |

- Built a CNN model using **PyTorch** for image classification on the **Intel Image Dataset**.
- Achieved a test accuracy of **71.83%**, with a training accuracy of **75.6%** and training loss of **68.8%**, indicating strong model performance.
- Tracked model development and performance metrics using **MLFlow** and **DagsHub**.
- Used **DVC** for pipeline tracking and deployed a Flask app with **HTML** and **CSS**.
- Executed the project in **VSCode** using **Python**, with NVIDIA CUDA support for enhanced computational efficiency.
- **Project Link:** GitHub Repository — **MLFlow:** DagsHub MLFlow

INTERNSHIP

IIT Tirupati **09 2024 – Present**
Project Engineer *Tirupati, India*

- **Contributing to the "Design and Development of Algorithms for Online Long-Term Target Tracking" project.**
- **Evaluating different types of Object Tracking algorithms on Custom Datasets**
- **Deriving a new technique of Object Tracking using Python, Pytorch**

TECHNICAL SKILLS

Languages: Python(ML), C++(DSA), SQL
Domains: Machine Learning, Object Detection, Data Structures & Algorithms
Developer Tools: VS Code, Anaconda
Technologies/Frameworks/Libraries: Tensorflow, Pythorch, Linux, MLFlow, Git, DVC

ADDITIONAL COMPETENCIES

- item Solved 400+ DSA Problems on LeetCode.
- Data and Pipeline Tracking using Git/Github, Dagshub, DVC.
- Basics of Deployment of ML models using FastAPI, Docker and AWS.
- Basic of Frontend Development using HTML, CSS.