

AHMEDABAD UNIVERSITY
SCHOOL OF ENGINEERING AND APPLIED SCIENCE
Winter Semester 2024
CSE-541 Computer Vision

Team Number: 3

Members:

Khwahish Patel	Krishang Shah	Sachin Dindor	Dhruvesh Panchal
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Project 6: Explore oriented object detection (OOD) models. Create our own AU drone dataset for such a model and then test/validate trained models.

WEEKLY REPORT

(Week 8)

(24/03/2024 - 31/03/2024)

Tasks Completed:

- We have tried using the AU drone dataset which we were provided. It comes with labels so we made sure these labels were correct and checked that the data was all good to use.
- We looked at different models that are good at spotting objects in pictures from drones.

Challenges Faced:

- Adapting OOD models to suit the specifics of the AU drone dataset, including variations in lighting, angles, and object orientations, posed challenges in achieving optimal performance
- Not having access to GPUs hindered our progress a lot.
- Trying to fine-tune pretrained models to effectively detect oriented objects requires adjustments of hyperparameters and optimization strategies which is very tricky.
- Implementing every code that we found for bounding boxes on the dataset, did not yield efficient results.

Future Milestones:

- Conduct comprehensive evaluation and validation of trained OOD models on both the AU drone dataset and possibly other benchmark datasets to assess generalization capabilities.