AHMEDABAD UNIVERSITY

SCHOOL OF ENGINEERING AND APPLIED SCIENCE

Winter Semester 2024

CSE-541 Computer Vision

Team Number: 3

Members:

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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 2)

(05/02/2024 - 11/02/2024)

Tasks Completed:

- ➔ Model Exploration: Researched the H2RBox-v2 model for potential implementation.

Next Steps:

- ➔ Implementation Start: Begin coding the H2RBox-v2 model in PyTorch.
- ➔ Dataset Preparation: If necessary, preprocess the AU drone dataset to fit the chosen model's input requirements.
- ➔ Baseline Evaluation: Consider establishing a baseline with a simpler OOD model to compare against H2RBox-v2 results.

Pending Tasks:

- ➔ Complete H2RBox-v2 implementation
- ➔ Dataset pre-processing (as required)
- ➔ Baseline model selection and implementation

References:

- ❖ H2RBox-2 Paper: https://arxiv.org/abs/2304.04403
- ❖ H2RBox-2 PyTorch Code (MMRotate): https://github.com/open-mmlab/mmrotate
- ❖ Additional OOD Implementations: You can find repositories on GitHub or Papers With Code (https://paperswithcode.com/task/oriented-object-detection)