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 5)

(19/02/2024 - 23/02/2024)

Tasks Completed:

- ➔ Explored the DOTA (Dataset for Oriented Object Detection) dataset extensively to understand its structure, characteristics, and suitability for our project.
- ➔ Identified challenges associated with the DOTA dataset: The dataset is extensive, comprising a large number of annotated images, requiring robust computational resources for processing and analysis.
- ➔ Investigated YOLO (You Only Look Once) as one of the potential candidates for our project, given its efficiency and effectiveness in object detection tasks.
- ➔ Additionally, we explored various adaptations and enhancements of YOLO specifically tailored for oriented object detection tasks

Challenges Faced:

- ➔ One big problem we faced was handling the massive DOTA dataset. It's so huge that dealing with it needed a lot of careful thinking and planning to make sure we used our resources wisely and didn't waste time or energy.

Next Steps:

- ➔ Start working of AU drone Dataset and study about it
- ➔ We'll keep tweaking them and trying new things to make them better.
- ➔ Look into ways to make our models work even better. This might involve tricks like making the data we have look different, making sure our models don't get too complicated, and adjusting how they're built to make them faster and more accurate.