

## **Week 5 - Check In**

### **Oct 20, 2024**

#### **1. How was the mentor meeting? Was there a good discussion/Did you get your questions answered/requests responded to?**

The mentor meeting was productive. We discussed our implementation of on-the-fly data augmentation during model training. Additionally, we agreed to create individual reports detailing each team member's specific contributions to the project. These reports will be shared with our professor to provide a clear overview of our progress and individual efforts.

#### **2. What has been the group's overall status and contributions this week?**

This week, our group focused on implementing the on-the-fly data augmentation technique. Instead of expanding our dataset by creating and saving multiple augmented versions of each image, we're now applying random transformations during the training process. This means our model sees varied versions of each image across different epochs without increasing the dataset size. We also discussed creating individual reports detailing each team member's specific contributions to share with our professor.

#### **3. What has been your individual contribution to the project this week?**

Abhik Biswas - EDA completion and Fine-Tuning Vision Transformer backbone models using Low-Rank Adapters (LoRA), of which I will be sharing the results in tomorrow's meeting

Isaac Tucker Peabody - Siamese Networks + Fine Tuning (along with Abhik)

Harinder Mashiana, Mohini Bhawe, Shrinjay Kaushik - Running the existing ResNet-18 Pipeline, trying and testing out different Augmentation Techniques (Augmentation on-the-fly)

#### **4. Any challenges or roadblocks?**

No significant challenges or roadblocks were encountered this week. The implementation of the new augmentation technique went smoothly and will be tested on new dataset in coming week.

#### **5. Any questions or feedback?**

We don't have any specific questions at this time. We're looking forward to analyzing the impact of our new augmentation approach on model performance and discussing the results in future meetings.