

Evaluating Performance of Indian Road Marking Detection Models

Khushi Agrawal, Jafri Syed Mujtaba, Samarth Prashant Bankar

Ahmedabad University

Team: CV PROJECT

WEEK NUMBER: 4

A. Work Completed

- Selected the DeepLabV3+ model with a ResNet backbone for road marking segmentation.
- Loaded the dataset and ensured correct pairing of images and segmentation masks.
- Trained the model using the training set and validated using the validation set.
- Applied a combination of Cross Entropy Loss and Dice Loss to improve segmentation accuracy.
- Visualized model predictions to assess performance against ground truth masks.

B. Upcoming Tasks

- Fine-tune the model by experimenting with hyperparameters like learning rate and batch size.
- Evaluate other models such as U-Net and SegFormer for performance comparison.
- Implement post-processing techniques to refine predicted masks.
- Begin preparing final project documentation and presentation materials.