



Ahmedabad
University

CSE641: Computer Vision: Modern Methods And Applications

Report-4

Group 1

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Progress Made During The Week

Backbone Network Transition:

Transitioned ResNet-50 to MobileNetV2, EfficientNetB0, and InceptionV3 as the characteristic extraction backbone successfully. Conducted initial comparative look at of their overall performance within the CLIP framework.

Changing Hyperparameters:

Changed hyperparameters to fine-tune this model and reduce loss even as training and validation whilst decreasing training time.

- **Observation:** Increasing batch size does not have an effect on the model's overall performance however decreases training time drastically.

Retrieval Performance Evaluation:

Utilized compute retrieval metrics code for finding Rank-1, Rank-5, and Rank-10 to find the effect of different backbone networks. We have run this code on the validation dataset and analyzed the map.

Mid-term Presentation:

Delivered challenge improvements, including the approach, consequences from the retrieval evaluation, and results of spine diversifications.

Goals For Next Week

- Tune the projection head to improve feature correspondence among text and photograph embeddings.
- Deploy the optimized model on someone retrieval dataset for real-international evaluation.
- Increasing performance of this model while optimizing projection head.