CRCV REU Week 6

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Progress

- Started training RepNet with embedded TokenLearner module
- Began setting up TransRAC code
- Read through an adaptive tokenization paper
Implementing TokenLearner in RepNet

Current Training:
- Epoch 18
- OBO: 0.3328 (Baseline: 0.3058)
- MAE: 0.2543 (Baseline: 0.3168)
TransRAC
Staged Learning

20 frames

Timesformer → Token Reducer

Compare

Increase reduction

30 frames

Timesformer → Token Reducer

CLS

CLS

Compare
A-ViT
Hongxu Yin, Arash Vahdat, Jose M. Alvarez, Arun Mallya, Jan Kautz, Pavlo Molchanov (NVIDIA)

\[ L_{\text{overall}} = L_{\text{task}} + \alpha_d L_{\text{distr.}} + \alpha_p L_{\text{ponder}}, \]
Next Steps

- Finish training TransRAC
- Put together code for our staged learning idea
- Investigate more adaptive tokenization papers