Sign Language Detection using Computer Vision

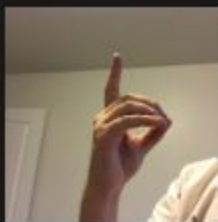Triboi Maria-Emanuela, G.1B, CI

Objectives

- Only 9 letters: A - I
- Different methods:
    - Template matching
    - CNNs
- Explore different enhancements techniques
    - Learning rate and epochs scheduling
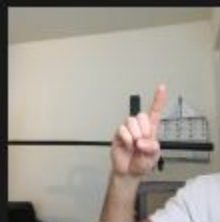   - Data augmentation

ASL(American Sign Language) Alphabet Dataset
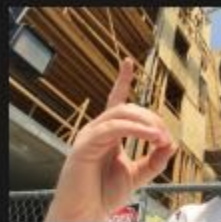
ASL images for classification
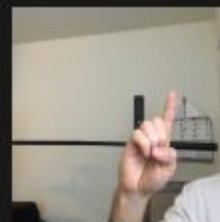

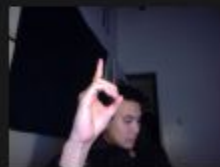|				
61.jpg	62.jpg	63.jpg	64.jpg	65.jpg
67.jpg	68.jpg	69.jpg	70.jpg	71.jpg

Sign Language Recognition using CNNs - steps

1. Image pre-processing
2. **Model architecture**
3. Data Augmentation
4. Model Training + Evaluation
5. Learning Rate Adjustment
6. Best Model Evaluation

Enhancements

- Data augmentation
- Learning rate and epochs scheduling