

ASL Alphabet Interpreter

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Introduction



Goal:

Correctly identify American Sign

Language (ASL) alphabet characters in a

picture with a 75% accuracy rate.

Motivation:

Approaching this already explored topic

but want to implement in a non-invasive

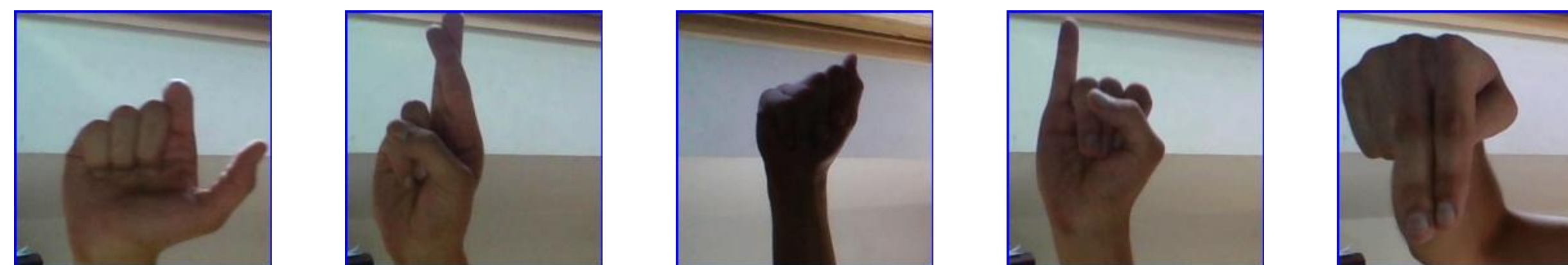
way to promote a natural atmosphere for

transcribing gestures.

Methodology

Data:

- Kaggle dataset, [ASL Alphabet | Kaggle](#)
- 87,000 200x200 pixel training images, 40% of which were used and 30% of which were trained

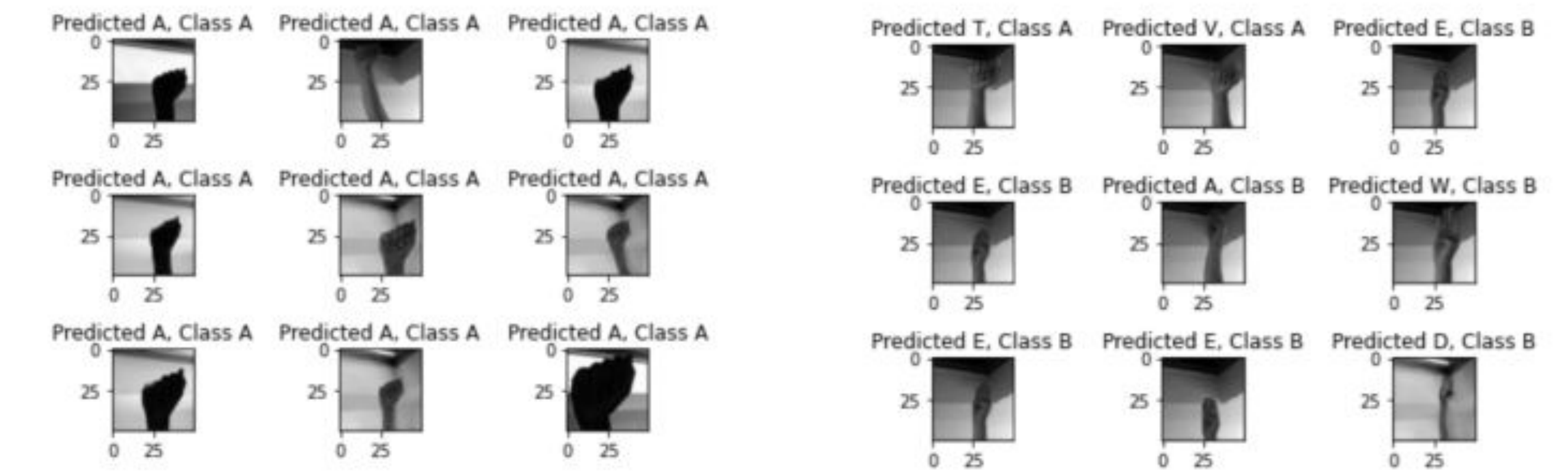


Machine Learning: CNN

Algorithm Steps:

1. Load and properly preprocess dataset from Kaggle (Shrink size, greyscale, label...)
2. Train CNN on hand data from Kaggle

Results



Our implementation was good, but suffered from overfitting and a lack of adaptability. A more varied dataset would help with this along with algorithm tweaking. Above are some instances of success and failure. The model produced a 98.24% accuracy rate on the testing data.

References

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