Sign Language Recognition

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Why did I choose it?

- Keen to know how computers interpret or analyze images

Technologies to be used

- Python
  - Pandas: Read dataset
  - Numpy: Data processing
  - Matplotlib: Data visualization
- Keras: Deep learning models
- Tensorflow: Framework for Keras
- OpenCV: Image processing

Resources

- Dataset: Mnist-Sign Language Recognition from Kaggle
  - Training data: 27455 cases
  - Testing data: 7172 cases
  - 784 columns for each 28px*28px picture
- IDE: Visual Studio Code

Plan

- Classify using ML algorithms: KNN and SVM
- Classify using Convolutional Neural Network
- Compare their results

Progress so far

- Dataset visualization
- Images to pixels and vice-versa
- Suitability of various ML algorithms

Recent Commits

22 Jun, 2019 7 commits

sequential model
Meetanshi Mittal authored 1 day ago

np.eye
Meetanshi Mittal authored 1 day ago

preprocessing done
Meetanshi Mittal authored 1 day ago

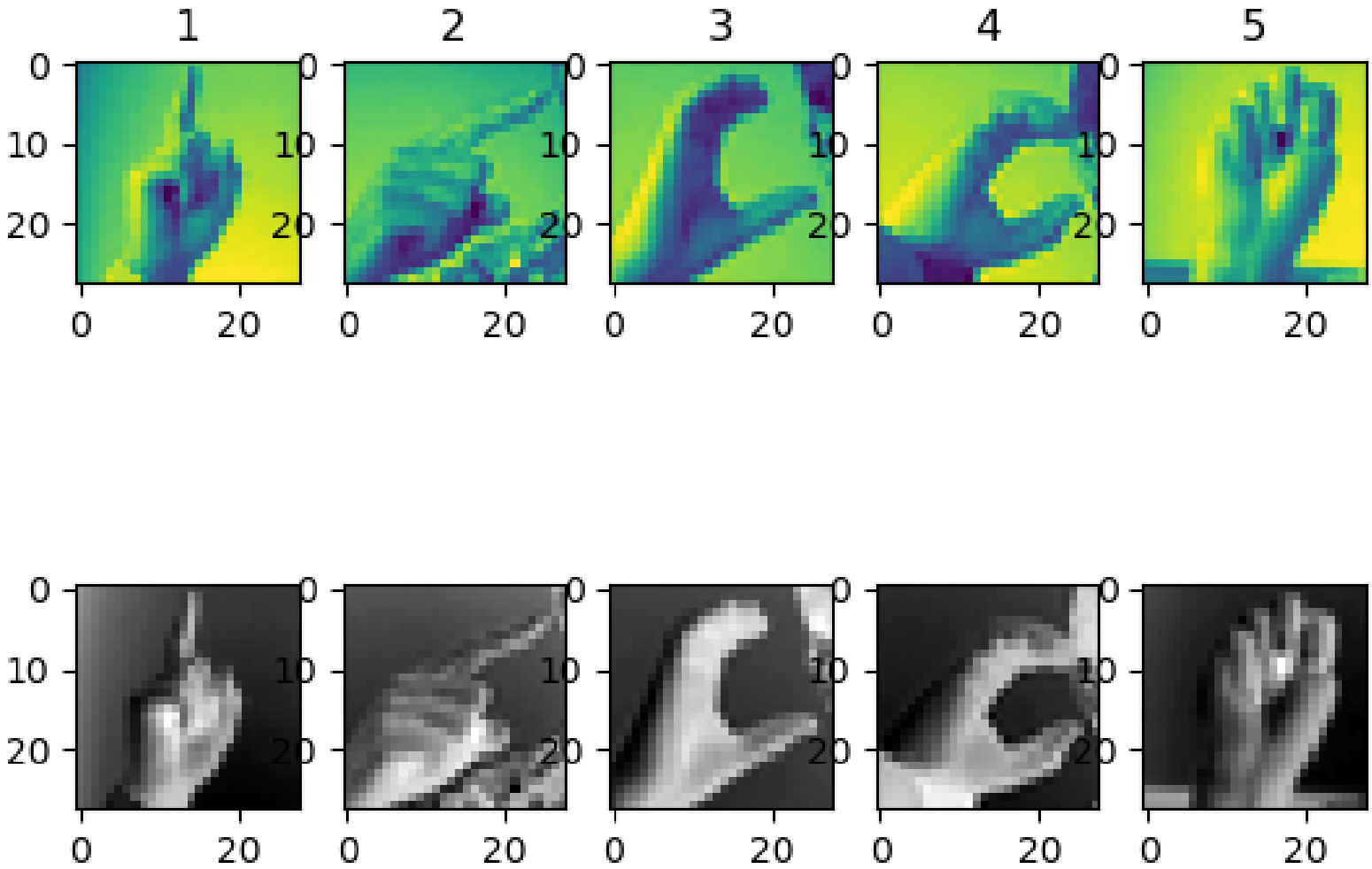
more functions
Meetanshi Mittal authored 1 day ago

dataset added
Meetanshi Mittal authored 1 day ago

understanding dataset
Meetanshi Mittal authored 1 day ago

one hot encoding
Meetanshi Mittal authored 1 day ago

Training Images



Goals

- Short Term Goal
  - Recognizing the alphabets of the English Language
- Long Term Goal
  - Recognizing complete words and sentences

Discussions