

DEAF COMMUNITY

Arabic Sign Language Recognition Using Machine And Deep Learning



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Abstract

We all want to communicate with deaf people but not everyone knows sign language. Therefore, We designed a mobile application capable of recognizing Arabic sign language alphabet (ArSL) using deep learning, We have used a fully labeled dataset of Arabic Sign Language consists of 54049 images for the 32 Alphabet collected from 40 participants representing different age groups. Also we have done a various image embedding to be share with interesting researchers.



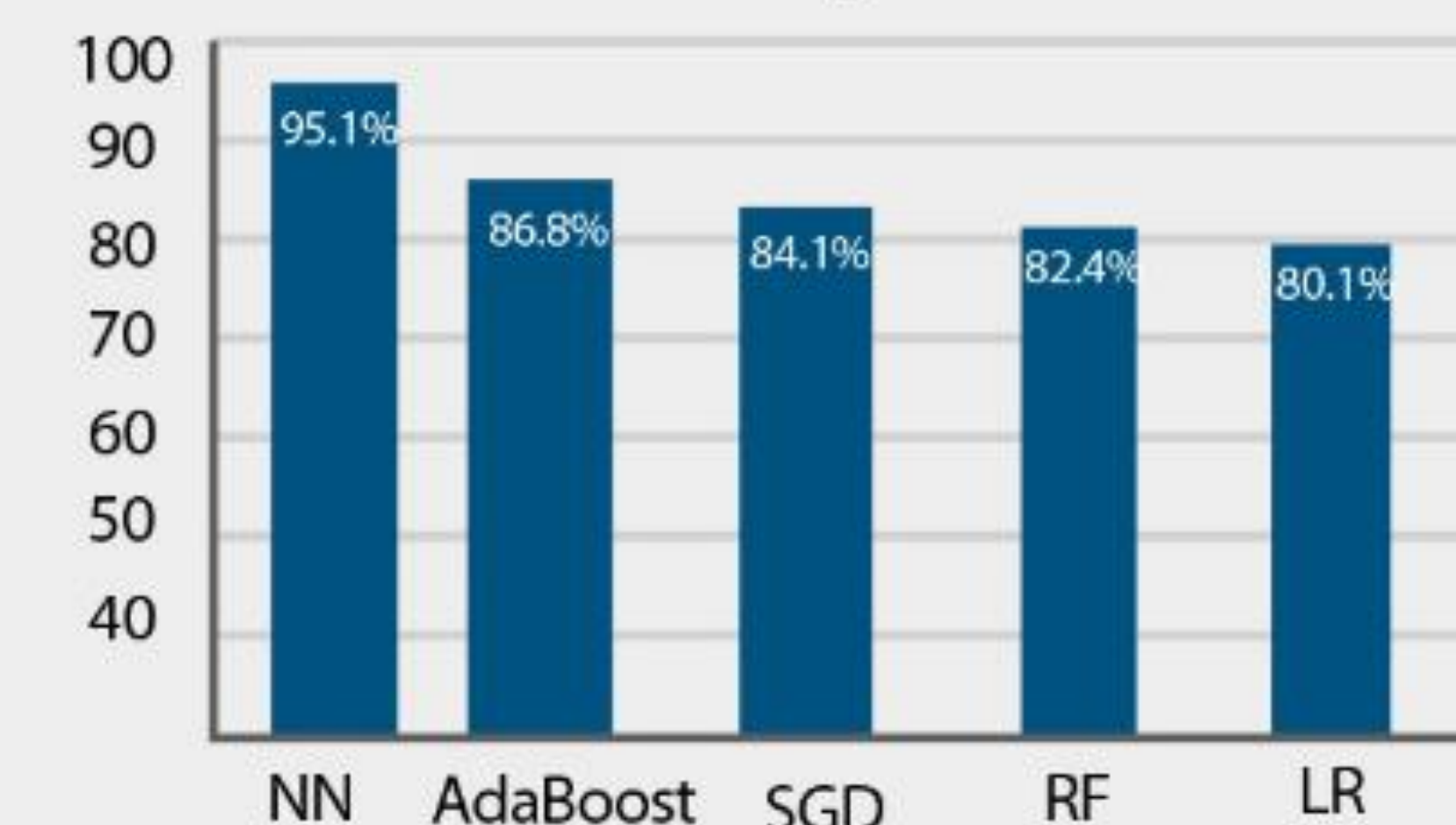
<https://data.mendeley.com/datasets/y7pckrw6z2/1>

Results of embeddings

Accuracy of Inception



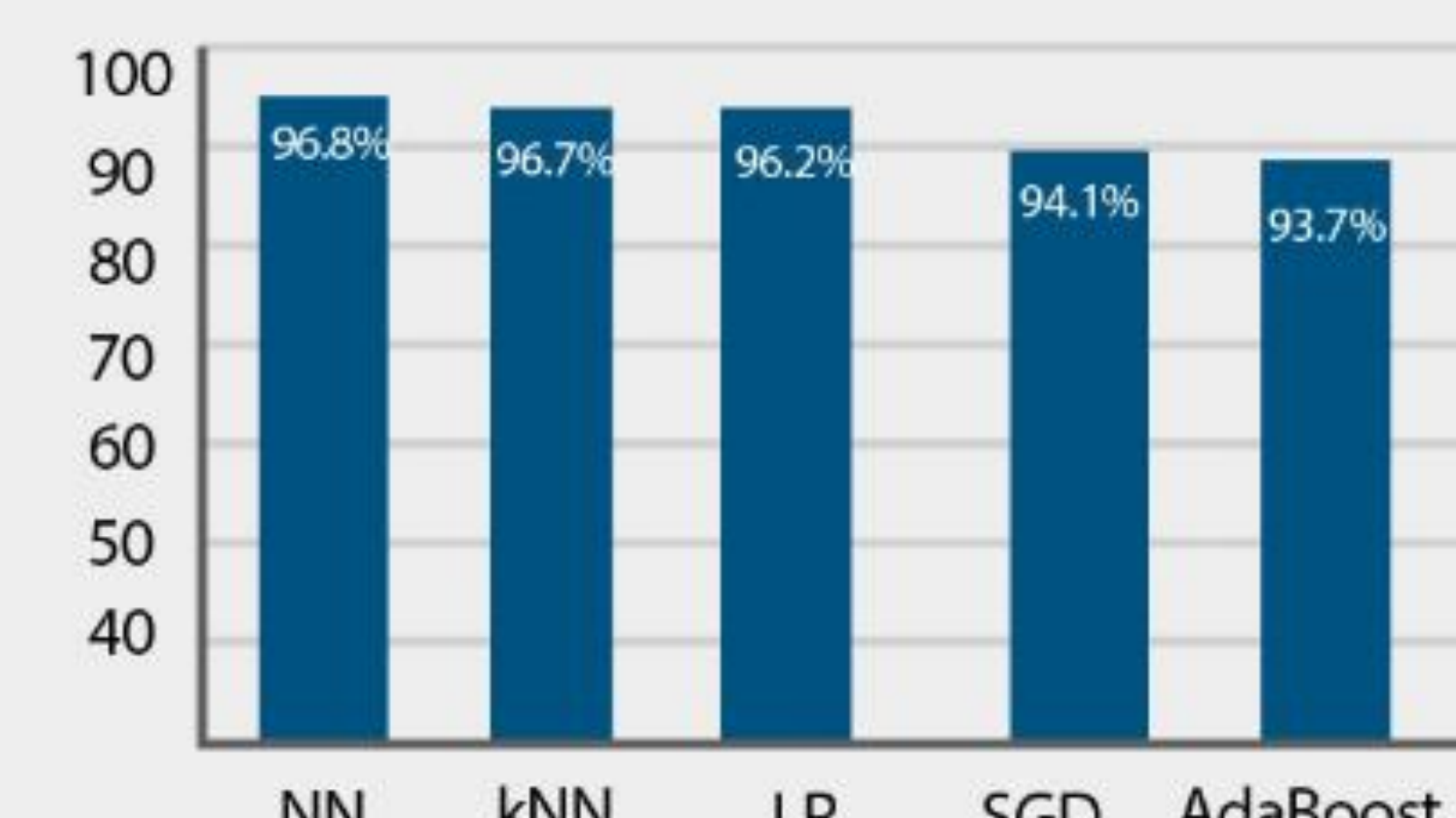
Accuracy of Painters



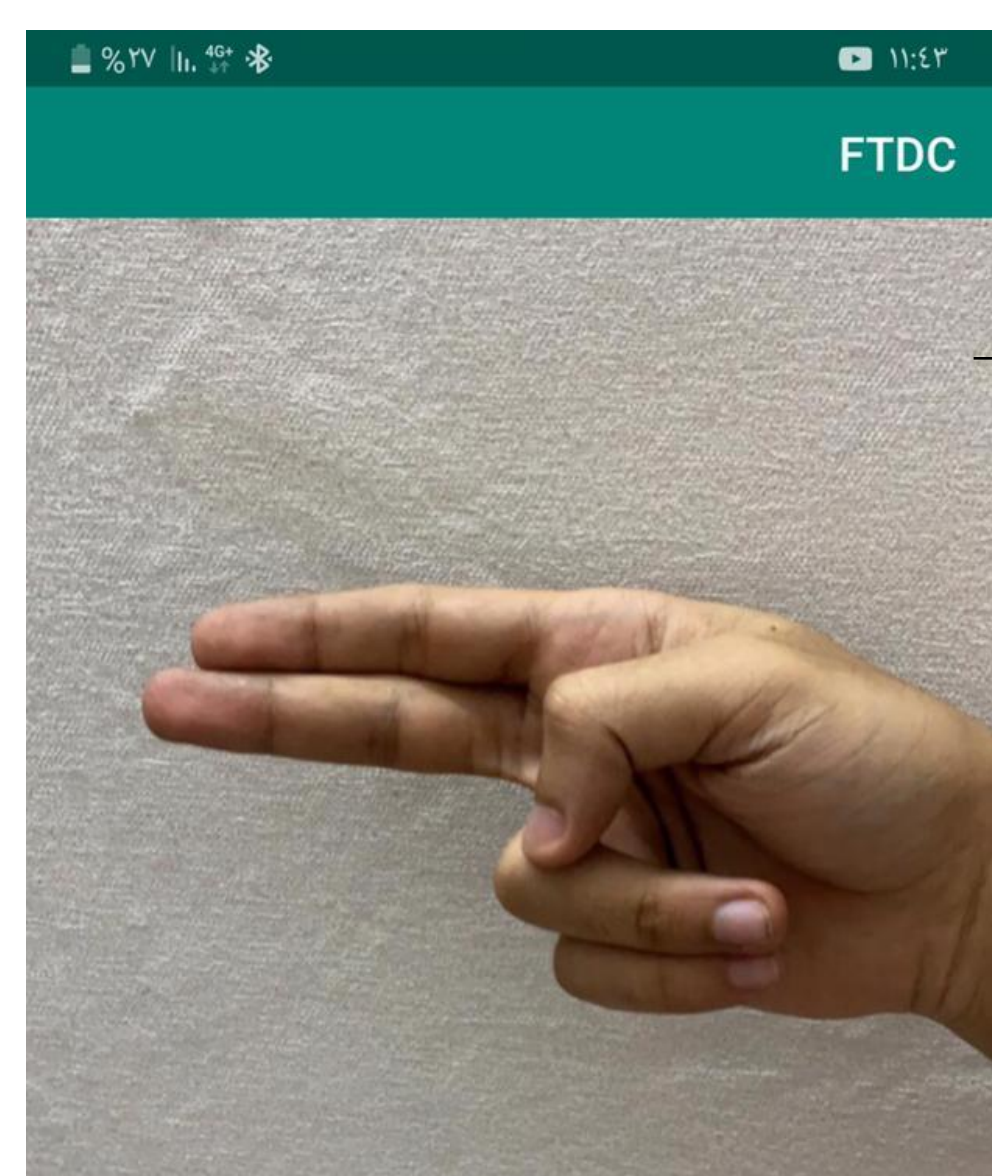
Accuracy of Vgg-16



Accuracy of Vgg-19



Application



Classification:

ع 0 (%89.07921)
ب 6 (%6.20029)

Camera inputs goes here

Most accurate results shows up here



Classification:
ش 22 (%98.82353)

Tools Used in the project



Contact information

Group email: deafsapp.team@gmail.com

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Haven't tried our app yet ?



Try it now!

Interested in the results of image embedding ?



Here it's!