HANDWRITING RECOGNITION

BVRIT HYDERABAD College of Engineering for Women

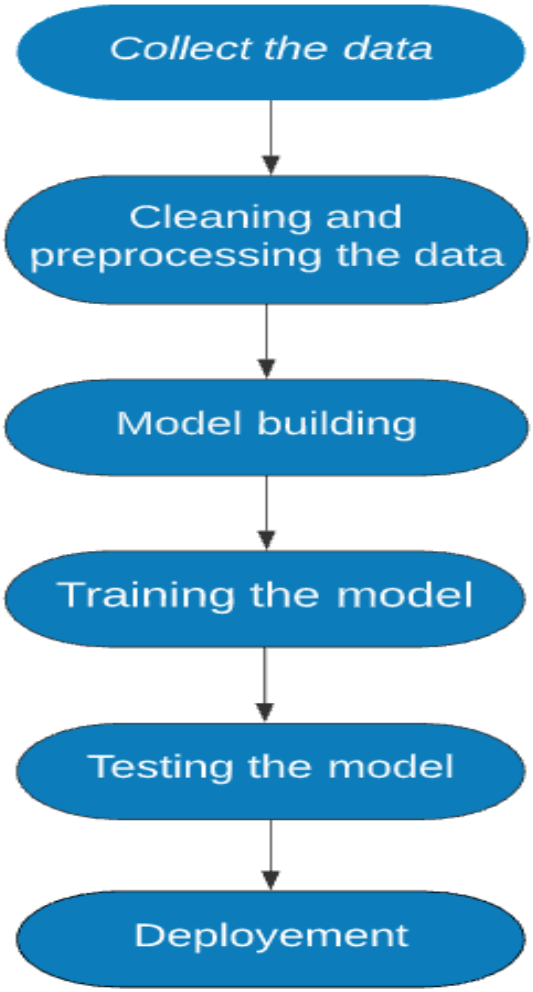
May 29, 2021

18*WH*1*A*1221 – *K.MONIKA*
18*WH*1*A*0503 – *A.SUSHMA*
18*WH*1*A*0543 – *M.CHARITHA*
18*WH*1*A*0243 – *C.PHANISUPRASANNA*
18*WH*1*A*0483 – *HEENASHAHANAZ*

PROBLEM STATEMENT

Handwriting recognition,classifying each handwritten word in notes is a challenging problem due to huge variation in individual writing styles.This project classifies the handwritten paragraph into digital text.

APPROACH


Collect the data
Cleaning and preprocessing the data
Model building
Training the model
Testing the model
Deployement

DATA SET

- The data set we are using is "Handwriting recognition" it is taken from Kaggle.com.
- https://www.kaggle.com/landlord/handwriting-recognition
- This data set consists of more than 4,00,000 handwritten words.
- It consists of training,testing and validation data.

TECHNICAL STACK

Languages

- Python

Libraries

- Tensor Flow
- Keras
- Numpy
- Pandas

Tools

- Google Colab
- LaTeX

CHALLENGES FACED

- Setting limitations for data set.
- Understanding and implementing CTC.
- Creating model with bidirectional LSTM.

REFERENCES

- https://www.pyimagesearch.com/2020/08/24/ocr-handwriting-recognition-with-keras-and-tensorflow/

- https://towardsdatascience.com/intuitively-understanding-connectionist-temporal-classification-3797e43a86c

REPOSITORY

- https://github.com/monika-ketepally/HandwritingRecognition

DEMO