UCS749 LAB

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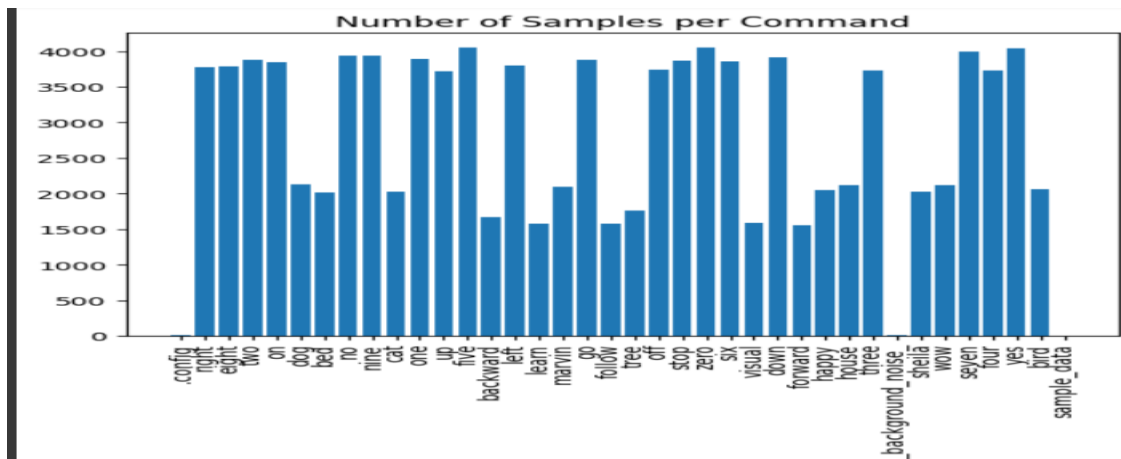**Aditya Jha**

4CO8

1. Read and summarise the paper in about 50 words.
   2. Download the dataset in the paper, statistically analyse and
      describe it, so that it may be useful for posterity. (Include code
      snippets in your .ipynb file to evidence your analysis.)
   3. Train a classifier so that you are able to distinguish the commands
      in the dataset.
   4. Report the performance results using standard benchmarks.
   5. Record about 30 samples of each command in your voice and create a
      new dataset (including a new user id for yourself). You may use a
      timer on your computer to synchronise.
   6. Fine tune your classifier to perform on your voice.
   7. Report the results.

Summary

The research paper presents a dataset of speech commands designed to train and evaluate keyword processing models in speech-rich and word-limited tasks. It describes the data collection process, its characteristics, and operational results. The goal of this data set is to enable the comparison of small language

interface models, and to promote improvements in accuracy and efficiency.

Results

Number of Samples per Command

Accuracy: 0.2538
Precision: 0.2433
Recall: 0.2538
F1 Score: 0.2420

Confusion Matrix