Conversational AI: Speech Recognition (UCS749)

Lab Eval Report

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Summary

The paper presents the Speech Commands dataset, created to help train and assess models for recognizing keywords in limited-vocabulary speech. It shows how the data was gathered, organised, and evaluated, focusing on its use for building small, efficient models that can run on devices with restricted computational resources. The dataset allows for consistent accuracy comparisons across models and aims to promote collaboration and progress in speech recognition research.

Datasets Used

[1] (2018) Speech commands dataset version 2. [Online]. Available:
http://download.tensorflow.org/data/speech_commands_v0.02.tar.gz

[2] (2017) Speech commands dataset version 1. [Online]. Available:
http://download.tensorflow.org/data/speech_commands_v0.01.tar.gz

https://drive.google.com/drive/folders/19_pqSu2d-pFWiVd9yac2Nns_wp-5JDLl?usp=sharing

Github link
https://github.com/nenipam/convoeval/blob/main/102117082_AnupamNainiwal.ipynb

Graphs

Distribution of Audio File Durations

Training and Validation Accuracy — Training and Validation Loss