PROJECT PROPOSAL

Classifying Urban sounds using Deep Learning

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INTRODUCTION

Audio data is always available to us. This project will aid deaf people in their day-to-day activities. We'll use Deep Learning techniques to classify ambient noises, with a special focus on identifying urban sounds.

DATA DESCRIPTION

This dataset contains 8732 labeled sound excerpts (<=4s) of urban sounds from 10 classes: air_conditioner, car_horn, children_playing, dog_bark, drilling, enginge_idling, gun_shot, jackhammer, siren, and street_music. The classes are drawn from the urban sound taxonomy.

TOOLS

To explore and analyze the data, we will be using Jupyter notebook to use python language and Python libraries, such as:

- Matplotlib and Seaborn for data visualization.
- Numpy and Panda for data read and write operations
- Scikit-learn
- TensorFlow
- Keras