Guided Projects Artificial Intelligence & Machine Learning

Guided Projects: Deep Learning

Speech – Music Recognition

Deep learning techniques such as **RNN or CNNs** can be used for **classification of an audio segment**. Given input audio, the trained model can predict the genre or class the audio segment belongs to which can be used for **music/speech analysis**. For example, **using this approach**, we can detect the **language being spoken** or the **instrument being played.**

Question:

Use GTZAN music genre dataset for classifying the song genre. Train a RNN that takes a song as an input and predicts the corresponding genre for the song. For implementation purposes, you can just use a specific time duration of the song as input (eg: just the first 10-20 seconds of each song). The dataset has a total of 10 classes, you may train for any 5 or all the classes using 90% of available data for training and rest for the test dataset.