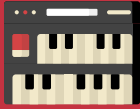




★ Album Artwork Classification

Metis Deep
Learning Project
By: Max Wood

Problem Statement



Objective

Build a neural network that can classify an album's musical genre from its album artwork

Usefulness

Record companies and artists will be able to better understand what listeners the cover of their album is targeting



Data Collection

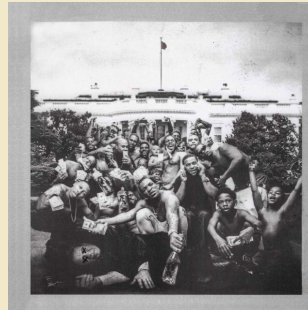
Album Genres

- Collected using billboard.py
- Used billboard's album genre charts to define album genres
- Albums collected - 8.2K :
 - Rock - 2.3 K
 - Rap - 1.2 K
 - Country - 1.2 K
 - Jazz - 1.5 K
 - Latin - 1.5 K
 - Holiday - 0.5 K



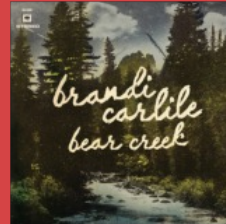
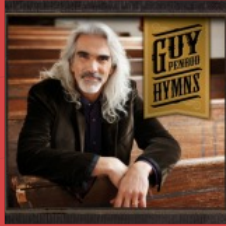
Album Artwork

- Collected Using Spotify's API and spotipy



*Albums on multiple lists were removed from all lists

Example Data (try yourself)

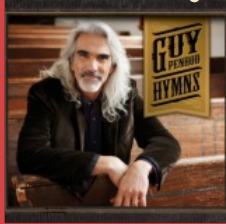


Genres:

- Rock
- Rap
- Country
- Jazz
- Holiday
- Latin

Example Data (answers)

Holiday



Latin



Jazz



Rap



Rap



Jazz



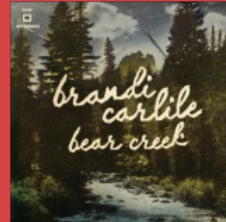
Country



Rap



Rock



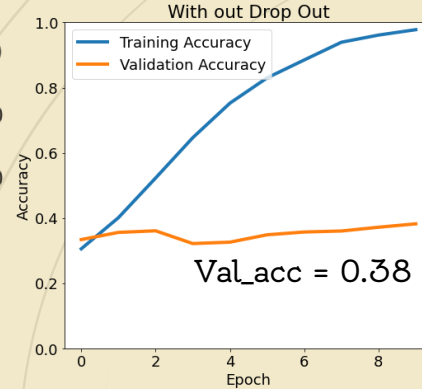
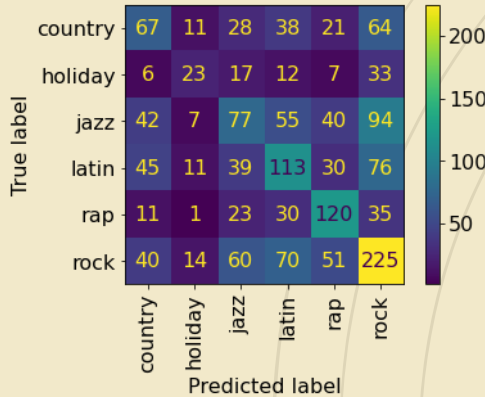
Genres:

- Rock
- Rap
- Country
- Jazz
- Holiday
- Latin

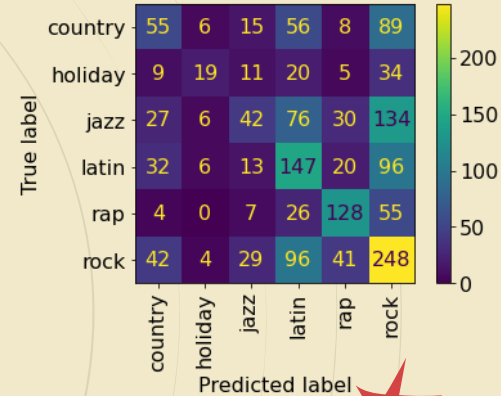
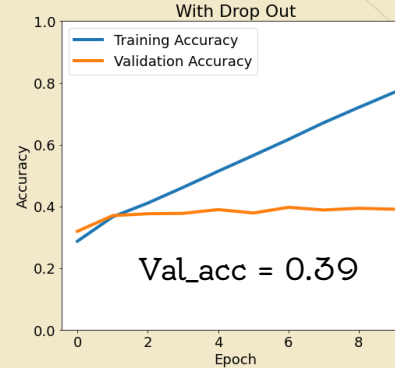
Model From Scratch

- 80/20 Training/Validation Split

CNN no Drop Out

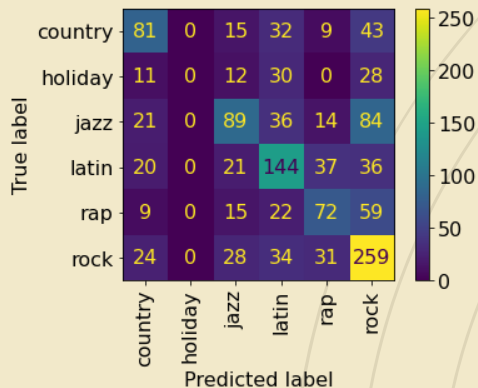


CNN with Drop Out

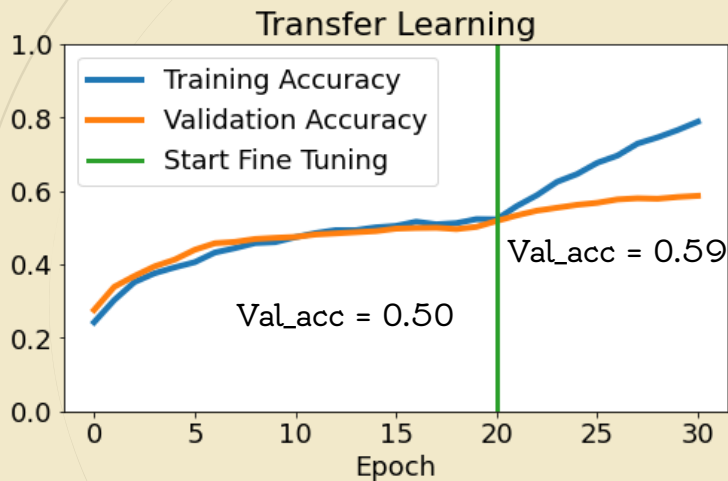


Transfer Learning

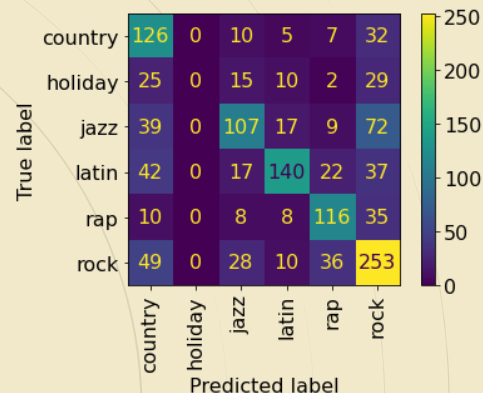
Pre Fine Tuning



- Mobile Net V2
- Initially froze the base model
- Then allowed for some Training on Full Model



Post Fine Tuning



The background is a solid red color. A faint, multi-colored rainbow arches across the left side of the image. Three yellow, five-pointed stars are scattered across the background: one in the upper right, one in the middle left, and one in the lower center.

Thanks!

