Tasks to end 03/25/2022

Overview

- 2-3 tasks left before we’re at point of report/presentation
  - Implement more measures of performance
  - Implement AE transfer learning approach
  - Data Analysis
- Seems like a week is a good estimate to get those done (we also only have a week left basically…)
- Afterwards we get the presentation/report ready

Multiple measures of performance

- Project description says we need to compare using multiple performance metrics
- So far we only have accuracy it seems
- Amin mentioned others in proposal feedback
- Comparatively easier to implement than designing a model or tuning hyperparameters
- Necessary for both baseline and AE-TL approach

Transfer learning for AE

- Emmanuel's auto-encoder needs be integrated w/ a ResNet50 to train it via transfer learning
- Larger task of the two
- Potential issues might cause re-running other tests
  - Mel-spectrogram shape might need to be changed to be square
  - Effects likely to not decrease baseline performance but fundamentally unknown
    - ie. choose the next largest mel-spectrogram size which is square to ensure data isn't lost
    - Re-running tests on baseline w/ new parameters likely increases training time

Data Analysis

- Needs to be done before we can write report
- Could point out issues/flaws in our designs
- Might necessitate re-running or designing new tests (pending availability and complexity)
- Requires the multiple measures to be implemented
- MISC – Add more architectures?

Report/Presentation

- Report
  - Each person writes what they did as they’re going to have the best knowledge about the tasks they performed
  - Someone goes through it once at the end
  - Everyone signs off (similar to proposal)
- Presentation
  - Each person creates slides for their parts
  - Presenter puts it all together and has final say/changes things if need be
  - Who presents?