Musical emotions

Daniel Ackermans

The idea

- Can music evoke emotions?
  - What emotions is music able to evoke?
  - What causes a piece of music to evoke these emotions?
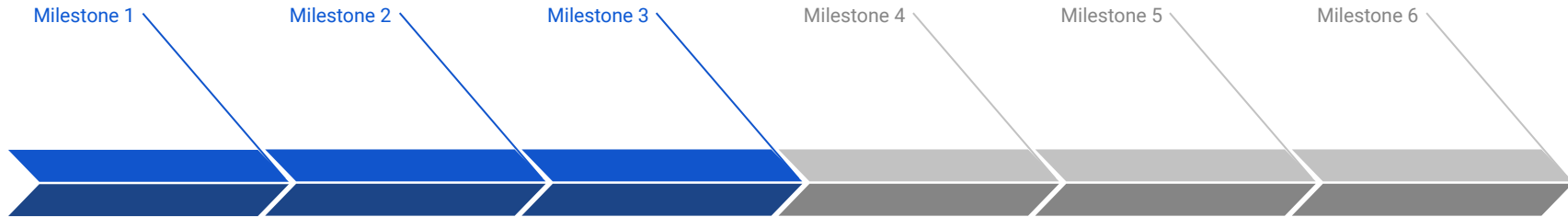 - Can I construct of piece of music to evoke a specified emotion?

Hypothesis

- Music is able to evoke a wide array of emotions based on its specific combination of properties (tempo, key, rhythm, etc.)
- The emotions evoked by music are not solely describable by its mode (Major → Happy && Minor → Sad)
- If I run an experiment where I introduce semi-randomly produced pieces of music to a set of test subjects, then the major pieces will be found to be less happy and the minor pieces will be found to be less sad then prescribed by western music practices

The Plan

Milestone 1

Milestone 2

Milestone 3

Milestone 4

Milestone 5

Milestone 6

Find a platform

Find a platform that will work for the purposes of this research

Learn the platform

Learn the platform which I would use to conduct this research

Produce examples

Use my platform to produce basic examples which could be used for initial testing

Experiment

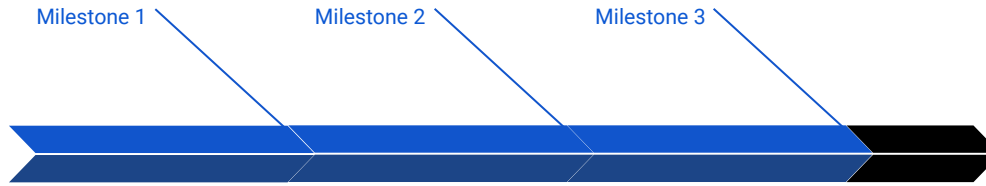Run an experiment to collect starting data

Improve examples

Improve examples with advanced hypothesis based off results. Repeat ms. 3.

Adv. experiments

Prouce examples meant to portray particular emotions, run experiments to test accuracy

How it happened

First Timeline

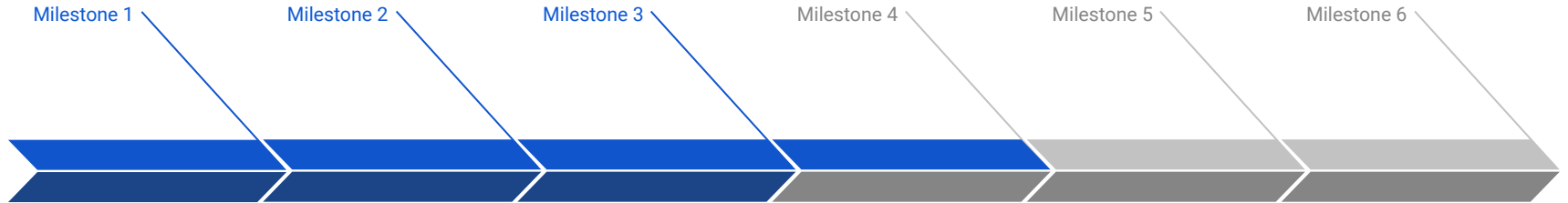**Milestone 1**

Found mingus

Found the mingus software to produce basic music based on inputs

Milestone 2

Learned mingus

Learned mingus and wrote a basic front-end interface

Milestone 3

Produced examples

Started to produce examples, but found that mingus did not have needed functionality.

Second Timeline

Milestone 1

Wrote a platform

Wrote a custom platform based off mingus work

Milestone 2

Learn the platform

Worked through making a front-end interface and added needed functionality along the way

Milestone 3

Produce examples

I have used my platform to produce 10 examples for experimentation

Milestone 4

Experiment

Run an experiment to collect starting data

Milestone 5

Improve examples

Improve examples with advanced hypothesis based off results. Repeat ms. 3.

Milestone 6

Adv. experiments

Prouce examples meant to portray particular emotions, run experiments to test accuracy

Survey presentation

Code demo

Future work

- Run initial experiment to collect starting analytics

- Use the experimental results to improve the code examples

- Continue process until accurate emotions are produced

- Will most likely be part of my coterminal studies

Questions?

Thank you Professor Hamilton