Team Contributions: POC Software Engineering

Team 8 – Rhythm Rangers

Ansel Chen Muhammad Jawad Mohamad-Hassan Bahsoun Matthew Baleanu Ahmed Al-Hayali

This document summarizes the contributions of each team member up to the POC Demo. The time period of interest is the time between the beginning of the term and the POC demo.

1 Demo Plans

Demonstration Our reduced-scope demonstration should illustrate the ability to acquire data programmatically, i.e., accessing MP3 files from Deezer or Spotify's APIs, and producing a single musical feature of the song, e.g., pitch, timbre, or whatever other feature is found to be representative of songs and relatively easy to implement.

Post-demonstration A successful demonstration will allow us to later scale up our data ingestion to satisfy multiple users' requests automatically, and provide songs' musical features on demand, expanding the available features incrementally. If the featurization/feature engineering component works correctly, a song recommendation component can later be integrated by using song features as distance metrics.

2 Team Meeting Attendance

| Student | Meetings |
|------------------------|----------|
| Total | 12 |
| Ansel Chen | 9 |
| Muhammad Jawad | 6 |
| Mohamad-Hassan Bahsoun | 10 |
| Matthew Baleanu | 11 |
| Ahmed Al-Hayali | 12 |

- The three missed meetings by Ansel Chen were: one where he was later caught up on by Ahmed (#208 then caught up on #209), one where Ahmed was catching Muhammad up on a missed meeting (#205), and one where the rest of the team got together to discuss kicking off the VnV plan (#188).
- The six missed meetings by Muhammad Jawad were: one where he was later caught up on by Ahmed (#204 then caught up on #205), one where a work session was scheduled during his class-time (#207), one where Ahmed was catching Ansel up on a missed meeting (#209), one which was an ad-hoc meeting (#189), one on a missed work session (preparing slides for a tutorial, hosting a tutorial, then exercising at the gym) (#191), and one where he arrived after submission of the deliverable (#194).
- The two missed meetings by Mohamad-Hassan were: one catch-up meetings between Ahmed & Muhammad Jawad (#205) and one catch-up meeting between Ahmed & Ansel Chen (#209).
- The one missed meeting by Matthew Baleanu was a catch-up meeing between Ahmed & Muhammad Jawad (#205).

3 Supervisor/Stakeholder Meeting Attendance

| Student | Meetings |
|------------------------|----------|
| Total | 0 |
| Ansel Chen | 0 |
| Muhammad Jawad | 0 |
| Mohamed-Hassan Bahsoun | 0 |
| Matthew Baleanu | 0 |
| Ahmed Al-Hayali | 0 |

We have chosen not to conduct any formal supervisor or stakeholder meetings yet due to the fragile scope of the project that was shrunk during the hazard analysis. Proceeding forward, there should be more structure to and confidence in the project so stakeholder engagement will be more frequent, i.e., approximately bi-weekly.

4 Lecture Attendance

| Student | Lectures |
|------------------------|----------|
| Total | 12 |
| Ansel Chen | 10 |
| Muhammad Jawad | 9 |
| Mohamed-Hassan Bahsoun | 11 |
| Matthew Baleanu | 9 |
| Ahmed Al-Hayali | 11 |

All of us except for Ansel missed the VnV lecture (#213) because it coincided with a SFWRENG~4X03 midterm immediately after it.

- Ansel Chen missed two lectures, the requirements documentation (#11) and the hazard analysis (#73) lectures.
- Muhammad Jawad missed three lectures, the requirements documentation (#11), Mark Pavlidis' guest lecture (#33), and the VnV plan (#213).
- $\bullet\,$ Mohamed-Hassan Bahsoun and Ahmed Al-Hayali both missed one lecture, the VnV plan (#213).
- Matthew Baleanu missed three lectures, the requirements documentation continued (#19), Mark Pavlidis' guest lecture (#33), and the VnV plan (#213).

5 TA Document Discussion Attendance

| Student | Lectures |
|------------------------|----------|
| Total | 3 |
| Ansel Chen | 3 |
| Muhammad Jawad | 3 |
| Mohamed-Hassan Bahsoun | 3 |
| Matthew Baleanu | 3 |
| Ahmed Al-Hayali | 3 |

6 Commits

| Student | Commits | Percent |
|------------------------|---------|---------|
| Total | 211 | 100% |
| Ansel Chen | 33 | 15.63% |
| Muhammad Jawad | 27 | 12.80% |
| Mohamed-Hassan Bahsoun | 31 | 14.70% |
| Matthew Baleanu | 43 | 20.38% |
| Ahmed Al-Hayali | 77 | 36.49% |

The commits-to-main were tracked using GitHub's Insights. Multi-author commits were used where appropriate, so commits are representative of contribution.

7 Issue Tracker

[For each team member how many issues have they authored (including open and closed issues (O+C)) and how many have they been assigned (only counting closed issues (C only)) over the time period of interest. —SS]

| Student | Authored (O+C) | Assigned (C only) |
|------------------------|----------------|-------------------|
| Ansel Chen | 1+2 | 42 |
| Muhammad Jawad | 1+9 | 33 |
| Mohamed-Hassan Bahsoun | 0+15 | 47 |
| Matthew Baleanu | 3+10 | 44 |
| Ahmed Al-Hayali | 11+63 | 48 |

All numbers were found using GitHub Issues' https://docs.github.com/en/searchgithub/searching-on-github/searching-issues-and-pull-requests, and each meric

is hyperlinked to the corresponding query.

8 CICD

For this project, CICD will be implemented through GitHub Actions. Each time a pull request is created (or when commits are made to an open pull request), a GitHub Actions workflow is triggered. This workflow will run on a virtual machine and use Tox to orchestrate the building, linting, formatting, type checking and unit testing of the project. The GitHub Actions page will show the progress of each action and display a green check mark for each action that completes without errors. Once all actions pass, the pull request will be allowed to be merged. This CICD pipeline ensures that code is written to a high standard by only allowing code to be merged if it meets the rigorous style and functionality requirements enforced by the static analyzers and unit tests.