EE / CPRE / SE 491

Sheet Vision

Iteration 7 Report

4/05/19 - 4/12/2019
Student suggested Project
Faculty advisor: Alexander Stoytchev

Team Members:

Bryan Fung — Frontend/Backend, Meeting Facilitator

Garrett Greenfield — Front end, Team Scribe

Ricardo Faure — Frontend/Backend, Meeting Facilitator

Trevin Nance — Machine vision, Chief Engineer Power System

Walter Svenddal — Machine vision, Report Manager

Past Week Accomplishments:

- Confirmed communication between AWS and Desktop Application.
- Established communication between mobile app and AWS (Ricky)
- Designed architecture for computer vision functionality (Trevin)
    - Created a UML diagram.
    - Created a point and notefinder class, created enums.
- Began working on detecting eighth note (Trevin)
    - Created a function which locates solid note heads
- Resource collection and Opencv (Walter)
    - Finished work on phase 3 of the OpenCV processing (polishing incoming sheet music images)
- Worked on a simple piano application(Bryan, Garrett)
    - Implemented more animations for piano in desktop application
    - Researched how to store keys pressed to a midi and read from a midi

Pending issues:

- Bug on the Android application which makes it crash

Individual Contributions

Team Member	Individual Contributions	Hours this week	Total Hours
Bryan Fung	Implemented animations for the piano	4	35
Garrett Greenfield	Researched an open source piano that can store the piano keys as midi files	3	28
Ricardo Faure	Established communication with AWS server from mobile app	5	40
Trevin Nance	Continued work on detecting eight and quarter notes	3	25
Walter Svenddal	Worked on document screening algorithm	5	28

Plans for Coming Week:

- Whole Team:
    - Research and confirm how the audio processing will work.
    - Add mobile application to our ecosystem.
- Bryan Fung:
    - Keep improving animations for desktop application, and help doing the piano for mobile.
- Ricardo Faure:
    - Implement Camera functionality for mobile app for snapping pictures and uploading them.
- Garrett Greenfield:
    - Improve and clean the Animation
- Trevin Nance:
    - Put function for finding note heads on server for Ricky, create function for finding open note heads
- Walter Svenddal:
    - Continue work on taking images of sheet music to reduce noise on photos taken of sheet music and reorient the music