EE / CPRE / SE 491

Sheet Vision

Iteration 15 Report

11/08/2019 - 11/22/2019
Student suggested Project
Faculty advisor: Alexander Stoytchev

Team Members:

Bryan Fung — Frontend, Software Engineering
Garrett Greenfield — Front end, Software Engineering
Ricardo Faure — Frontend/Backend, Software Engineering
Trevin Nance — Machine vision, Software Engineering
Walter Svenddal — Machine vision, Software Engineering

Past Week Accomplishments:

- Got computer vision algorithm integrated, put on the server and ready to be used by the mobile application.
- Implemented dynamic piano size for any phone.
- Option to cancel the song played from the JSON.
- Found better piano audio.
- Found a way to refresh the screen's orientation.

Pending issues:

- Put every component together.

Individual Contributions

Team Member	Individual Contributions	Hours this week	Total Hours
Bryan Fung	Implemented dynamic size for piano, added cancel song function for when playing from a JSON, found better piano sounds.	20	107
Garrett Greenfield	Designed refresh function to update screen orientation, found better piano sounds, added another octave to the piano.	17	86
Ricardo Faure	Research on Android Development Tools More architecture work on the mobile and server side.	20	87
Trevin Nance	Integrated all parts of CV algorithm, and helped to put it on the server. Changed note detection algorithm to more accurately detect notes on large images.	20	89
Walter Svenddal	Code cleanup, line detection, border identification	30	100

Plans for Coming Week:

- Bryan Fung:
  - Work with Garrett to implement an algorithm for playing from the new JSON format.
  - Improve UI.
- Ricardo Faure:
  - Clean up communications, work on new front-end features.
- Garrett Greenfield:
  - Work with Bryan to implement an algorithm for playing from the new JSON format.
  - Add bpm to the piano's implementation.
- Trevin Nance:
  - Get dotted note support working reliably, work on key signature detection.
- Walter Svenddal:
  - Improve line detection, thresholding, sheet music contour detection
  - Help design poster.

- All:
  - Design the poster.
  - Update the design documentation.