Journal Report 17
01/27/20-02/10/20
Irina Lee
Computer Systems Research Lab
Period 1, White

Daily Log

Wednesday January 29th

I transferred code from my right to left hand. The ”finger between motif” method and ”fill space” method was re-usable with modifications. I added an argument that kept track of whether the fingering applied to the left or right hand. The helper methods ”identify static hand position” and ”identify shift” needed to be split into two separate methods for the right and left hands, and they mostly mirrored each other.

Thursday January 30th

Because I decided to use the same methods to finger my left and right hand, I had to find a way to distinguish between scenarios in which the method(s) were being used on a right hand or when it was being used on a left hand, because the fingers would be reversed (e.g. a case that would require a 5 on the right hand would most likely need a 1 on the left hand). In order to track which hand was using which method, I added an extra argument that took either an ”L” or an ”R.”

Tuesday February 4th

For several test cases, I noticed that my code struggled with pieces that had little to no motif. With pieces that didn’t register a motif or had a motif less than three notes long, I integrated a pre-motif algorithm that I wrote in the first few months into the current structure to eliminate unnecessary errors.

Thursday February 6th

Although I had a rudimentary chord fingering system, it only worked with chords greater than a fifth. Now, I implemented a basic system for evaluating smaller chords in succession. Using a test case based off of ”Carrying the Banner,” I coded a method called ”finger chord section” that would identify the minimum and maximum of a group of chords and establish a hand position (similar to how I would do with minor shifts) to identify a relationship between chords in a group. It almost works, but there are chords that could have had a smoother transition.

Timeline

Date	Goal	Met
January 24th	Debug the program's issues with fingering Fur Elise	Yes, it successfully fingers Fur Elise
January 31st	Transfer my right hand fingering algorithm to my left hand	Successfully transferred right hand to left hand
February 7th	Algorithm can handle crossovers in succession	I focused on fingering chords in succession and completing pieces with little to no motif.
February 14th	Be able to handle more complex crossover scenarios	–
February 21st	Be able to evaluate variations in fingering and figure out whether they are for a small or large hand	–

Reflection

This week, I fixed a areas of my algorithm that were causing errors, including test cases that didn't have sufficient motifs and small chords in succession. Next week, I aim to transfer what I've written for the right hand into the left hand. For the next few weeks, I'm looking at developing a way to handle crossovers in more complex scenarios. At the very beginning of my research, I had the idea of doing multiple scans but never truly followed up on it. Instead, I've been putting all my code's capabilities into one scan. For crossovers, I'm thinking about implementing a multi-scan system.