Group Work

October 2019

During the month of October, our group worked very hard to fully grasp the concept of quantum computing. We were watching the suggested CMU lectures and reading into Cirq more. This being said, we began to become frustrated with the project we received as we felt we weren't able to use our accumulated skills to complete it. We also felt as though going straight into decomposition of gates was a little too far fetch for a group of students to complete with no prior knowledge of quantum computing. Because of this, we felt that we were at a standstill with our project, and didn't get as much work done as we had originally planned. We met as a group a couple times to discuss our frustrations and try to work around them, but we ultimately decided we needed to reach out to our client and advisor to rework our project. As a result, we came up with a new issue to work on that included a design element and new requirements for our project. Our group now has a more positive outlook on the project, and have been working more proactively on catching up on our work for the new issue.

October 27, 2019

As a group, we met to work on a markdown file for exporting to QUIL files in Cirq. We plan on using this document to be the basis for editing our design document with our new project and requirements.

Individual Work

Calista Carey

Hours Worked: 7 hours

I have been going more in depth into python and watching video lectures and following tutorial projects. Ever since we have gotten our new requirements I have been reading more into QUIL and QASM (as suggested by Victory). I have also been trying to figure out how the information in the lectures I have been watching relates to the code we will be writing for outputting a circuit to QUIL.

Austin (AJ) Hanus

Hours Worked: 8 hours

I created the markdown document for to start creating documentation and the design for outputting a Cirq circuit to QUIL. I also created a virtual Linux machine to be able to develop on the Cirq repository that I forked. I have also begun to investigate how Cirq outputs to QASM so that I can reserve engineer it for QUIL. My future work is to add to the markdown document for outlining our design for outputting to QUIL.

Andrew Hancock

Hours Worked: 7 hours

I have been watching the video lectures and making sure that I understand the content. I have also been studying QUIL in order to better understand the best way to approach our main issue. In terms of reading, I have been going through Rigettis documentation for QUIL on their github. This is helping me understand the translation that needs to take place for our issue.

Austin Garcia

I've been going over more of the quantum computing coursework as well as dealing with technical issues to set up the environment on my own device. I also helped add content to our markdown file. In the process I've been analyzing more QUIL, QASM, and Cirq documentation.

Jordan Cowen

Over the past few weeks I've been reading lecture notes and becoming more informed on quantum computing. In addition, I have looked through documentation for QUIL, and Cirq to determine how to translate between the two frameworks to form quantum circuits. I contributed to developing a design sheet for the implementation of translating Cirq circuits to QUIL.

Jacob Shedenhelm

Hours Worked: 8

I have been looking into QUIL and the gates that will be supported by our project. To do this, I have been examining the current approach that Cirq takes to output a Cirq circuit as QASM output. As well, I contributed to our markdown file that will be our documentation for this feature.