EE/ CprE/ SE 491 - sddec23-17

Simulated Design of Quantum Networks

Week 1 Report

Jan 24 - Feb 5
Client: Dr. Durga Paudyal
Faculty Advisor: Dr. Durga Paudyal

Team Members:

Benjamin Amick - Learning about quantum machine learning
Derrick Wright - Researching about Qiskit
Ohik Kwon- Taking part of researching hardware
Steven Tompary-Taking part of researching quantum networking

Past Week Accomplishments

- First meeting with advisor - Everyone
- First meeting with client: Dr. Durga.
  - Set our design project to quantum networking.
  - Members of team were given sub-domains to investigate
    - Steven Tompary: Quantum networking
    - Ohik Kwon: Quantum gates and hardware
    - Derrick Wright: Quantum computing + machine learning
    - Benjamin Amick: Qiskit

- Researching about quantum machine learning and taking notes during our meeting with advisor- Benjamin

- Learning about Qiskit and setting up communications with teammates in discord - Derrick

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- Researching quantum hardware and distributing a textbooks that we should read - Ohik

- Researching quantum networking and setting up when2meets - Steven

Books we recommended from advisor

- Quantum Computation and Quantum Information, Michael A. Nielson

Pending Issues

- Even though we all know that our project is about quantum networks, we need more specifications for our system and what our client/advisor wants from us. Especially information about simulation platforms and networking systems for example will it be quantum to quantum or quantum to classical computer?
- We need to set our weekly meeting hours for future work and communication methods.

Individual Contributions

Team Member	Contribution	Weekly Hours	Total Hours
Benjamin Amick	Researched about QKD	2	2
Derrick Wright	Researched Quantum Information	2	2
Ohik Kwon	Research quantum gates	2	2
Steven Tompary	Researched quantum networks	2	2

Plans for Coming Week

- The advisor gave each student a task to research and start to gain understanding on the topic given. The students will also be setting up times to meet.
- Make a note just for a question, prepare an organized question board for our team meeting which will be helpful to clarify our project.