

Quantum Computing Resources

1. Arithmetic (Addition) on Quantum Computers (Easier method)
 - a. <https://medium.com/@sashwat.anagolum/arithmetic-on-quantum-computers-addition-7e0d700f53ae>
2. Arithmetic (Addition) on Quantum Computers (Faster method)
 - a. <https://medium.com/@sashwat.anagolum/qftaddition-ce0a0b2bc4f4>
3. IBM Quantum Experience - Test circuits (14-17 year olds need parent permission when signing an agreement & students under 14 years are not allowed to use it)
 - a. <https://www.research.ibm.com/ibm-q/>
 - i. Click on person account on upper right and then “log in”
 - b. If you are under 14, you can ask your parents to demonstrate the circuit building in front of you.
4. Quantum Machine Learning Algorithms (including QGANs and decision trees, etc.)
 - a. <https://arxiv.org/pdf/1409.3097.pdf>
5. Quantum ML Neural Net Algo using Hopfield Network
 - a. <https://medium.com/xanaduai/making-a-neural-network-quantum-34069e284bcfb>
6. Understanding entropy in ML decision trees
 - a. <https://bricaud.github.io/personal-blog/entropy-in-decision-trees/>
7. Quantum Swap
 - a. <https://arxiv.org/pdf/1409.3097.pdf>
8. Python packages to use for Quantum ML & Quantum Computing
 - a. IBM’s Qiskit
 - b. PennyLane
 - c. Google’s Cirq
9. Presentations & code from previous AI Inspire workshops on Github AI Inspire page!