

NSF QLCI-HQAN Industry Internship Program 2021-22

[Internship opportunity at Aliro Quantum Technologies](#)

Aliro Quantum is a partner in the NSF-funded Quantum Leap Challenge Institute ([HQAN](#)), Director Brian DeMarco in Physics at the University of Illinois.

Aliro Quantum is a quantum networking platform company that is leading the charge on quantum network market creation by offering the foundational technologies needed for organizations around the world to build powerful quantum systems. An Air Force Research and National Science Foundation grant recipient, Aliro is enabling the design and control of quantum networks while partnering with national labs and hardware vendors including IBM Q Network, Rigetti, Honeywell Quantum Solutions, and Hyperion Research to make physics-based secure communication and scalable quantum computing accessible.



Aliro Quantum Technologies is very interested in students who have experience in one or multiple of the following areas:

- * Understanding of quantum networking protocol design and implementation (entanglement generation, purification, swapping, routing, scheduling).
- * Understanding of quantum memories, transduction, matter-photonic interfaces.
- * Hands-on experience with operating and programming quantum hardware (example single photon source, single photon detectors, modulators, quantum memories, etc.)
- * Software development for lab experiments. Orchestration software that configures devices and collect experimental data. Or real-time control firmware (example FPGAs) that controls devices (example collect and analyze single photon detector clicks)