DAVE WHITMAN-KINGHORN

SOFTWARE ENGINEER

EDUCATION

Rochester Institute of Technology (RIT):
Bachelor's degree in Software Engineering.

Anticipated graduation in May 2020.

AFFILIATIONS

Society of Software Engineers (SSE) at RIT (2016-present)

Member

Previously Laboratory Operations Committee Head

Sailing Team (2015-present)
Practices & Regattas

Club Café at RIT (2016-present)
Founder and previous President

Eagle Scout (2014)
Troop 160 Lexington, MA

- Community service
- Camping
- Sailing

Skills USA Massachusetts
Engineering design competition

- Bronze 2013
- Silver 2014

EXPERIENCE

(AIR FORCE RESEARCH LAB) • SOFTWARE ENGINEERING CO-OP • QUANTUM ALGORITHMS • 2019
Worked on a team with six other software developers to produce two quantum computer simulators. Responsible for design, development, and testing.
Noisy Quantum Computer Simulator: Produced a simulator to replicate noise and real-world errors in a quantum computer to support a published paper.
Photonics Simulator: Developed a multi part simulator to test experiments for a Quantum Photonic Processor.
Tools: **Python**, **Qiskit**, **Pyquil**, **Cirq**

• SOFTWARE ENGINEERING CO-OP • 2018
Worked on a six-member agile software team to create an Android version of a Python desktop application for hardware QA. Responsible for design, development (Full Stack), and testing.
Side project: Taught Java/Android development to team physicist.
Tools: **Android**, **Java**, **RxAndroid**, **Android Studio**, **Gradle**

• SOFTWARE ENGINEERING INTERN • 2017
Developed solutions for the collection of usage metrics from associates to automate feedback.
Virtual tour: Created virtual tour POC for investment centers (with VR support).
Sprout: Planed through inception phase of a new app to encourage younger generations to invest.
Tools: **Python**, **DTW distance algorithm**, **UI Mockups**

PUBLICATIONS

Koch, D., Torrance, A., Kinghorn, D., Patel, S., Wessing, L., & Alsing, P. M. (2019). Simulating Quantum Algorithms Using Fidelity and Coherence Time as Principle Models for Error. *arXiv preprint arXiv:1908.04229*.

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