

How To Get Started in Quantum Computing

 $\begin{vmatrix} |0\rangle \\ |-i\rangle \\ |+i\rangle \end{vmatrix}$

Natalie Hawkins (https://www.linkedin.com/in/natalie-hawkins-seattle/)¹

Seattle Quantum Computing Meetup (meetup.com/seattle-quantum-computing-meetup/)

Background

Working professionals with backgrounds in fields such as physics, chemistry, computer science, math, engineering, and others commonly ask how to get started in Quantum Computing. The answer can be long and detailed. Here is a path for a quick entry from zero, emphasizing insertion of "fresh", and a github to find more.

Speed ramp to getting started

You can learn in various ways:



QC content is large. How can you prioritize?

1) Identify questions, insert freshness
2) Start a project, push for fresh

Identify Questions

Q: What does the field need?

Hardware, software, error correction, algs, applications;
 See John Preskill's QGSS25 talk, Qiskit Channel, YouTube

Q. What are good resources for getting/staying current?

- Conferences: IEEE's Quantum Week and Q2B
- News: LinkedIn, X/BlueSky, QComputingReport, ChiQE
- Papers/Articles : arXiv, sciRate, Medium
- Blogs: scottaaronson.blog, ibm.com/quantum, etc.

Q: What is Quantum Computing, or what isn't it? See "What Quantum Computing Isn't", Scott Aaronson's TEDx talk on YouTube, and there are many, many others

Q: How can I learn about available jobs in QC?

- QuantumJobs.us
- QED-C Job Listings
- Subscribe to the ORNL newsletter
- The Quantum Computing Report (QCR) jobs list
- Company and University Websites, LinkedIn

Theme: Fresh

It is commonly said, "we need fresh ideas". Try to fresh your way to checking more of the boxes. As an example, Feynman said, "nature isn't classical". What else is nature? Fractal? How does nature control? Free your mind.

For More Q's and A's, including individual scenarios, see the Free Guides ->

Start a Project

Starting a project will help you focus and give you something to talk about. You can choose a topic related to your work, or something new that you wish to learn or do. Try adding fresh.

You can get ideas from: (in addition to Search)

- Hackathons and Challenges (live or github)
- Medium (look for project writeups)
- Books (which include or suggest projects)
- LinkedIn/Blogs/Papers/Books (applications)

Conclusion

Helping people act on their enthusiasm and interest can really be a win-win-win-win, for you, for them, for QC, and for society. Visit the github to find guides to go deeper, and to assist and accelerate the journey. Feel free to reach out with ideas, and to join the meetup.

Acknowledgements

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Free How-To Getting-Started Guides

See github.com/orgs/Seattle-Quantum-Computing-Meetup/getting-started/.