

Quantum technologist in industry

As a quantum technologist (also often called quantum scientists or quantum specialists) in industry, you will work in private company laboratories (or offices if your work is theoretical) to develop new technologies or to improve existing products or approaches. You will work within a team to design and test the technologies and sometimes carry out field trials where these devices are deployed into the real world for tests. Elements of your work are likely to be highly confidential, protected by patents and not able to be discussed with those outside of the company!



What does the role involve?

- Planning, managing and conducting research projects
- Designing new technologies
- Testing new technologies
- Developing manufacturing processes for technologies
- Conducting field trials
- Analysing results and drawing conclusions
- Writing scientific papers and/or business reports
- Attending conferences, user engagement events and trade shows
- Meeting with potential users of technologies



Where would I work?

Company laboratories and offices. Occasionally required to conduct fieldwork.



What subjects should I do well in at school?

Computer Science, Mathematics, Physics, Electronics, Chemistry.



What qualifications do I need?

Minimum bachelor's degree but ideally PhD in Computer Science, Electronic Engineering, Mathematics, Physics (or related field).



What skills and attributes are required?

Good written and verbal communication, proficient in IT, knowledge of various computer programming languages, time management, problem solving, ability to work in a team and individually, project management, inquisitiveness, innovative nature.



What work experience would be helpful?

Hands-on experimental experience, industry placements (e.g. during graduate studies), experience of using various computer programming languages e.g. python, Java, C++ etc.



What about career progression?

Quantum technologists can undergo several promotions within their careers, from beginning as junior members of the team to leading a team or multiple teams, to eventually heading up a company.

CASE STUDY



Dr Ryan Parker

Ryan began by studying for an undergraduate degree in Chemistry and subsequently a PhD in quantum technologies through the Quantum Communications Hub. He then went on to be a Research Specialist in Quantum Technologies at BT where he worked with customers to understand their needs and carry out technology trials. He subsequently became a Quantum Specialist at ArQit. Find out more about Ryan's journey at: (tinyurl.com/careersinquantum).



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