

QUANTUM SCIENTIST - London***ORCA Computing Ltd.*****About ORCA Computing:**

ORCA Computing is probably one of the UK's most innovative and disruptive startups. A spin-off from the University of Oxford, ORCA is co-founded by a quartet of two of the world's leading experts in quantum optics and two experienced entrepreneurs. Our mission is to compete in the global race to build the world's first useful quantum computer. Entering a race alongside the likes of Google, IBM and Microsoft is not something that we take lightly, but with our novel optical fibre based technology and working with a world class team, we are confident we can make a difference.

ORCA's approach uses single photons, optical fibres and off-the-shelf telecoms components to carry out quantum information processing — a completely revolutionary idea that is only made possible using our proprietary quantum memory technology.

By joining ORCA, you'll be working in a fast-paced multidisciplinary team of the very best quantum scientists, engineers and mathematicians drawn from across industry and academia. You will be highly intelligent and well trained in your area; creative and able to solve complex problems. We are relaxed and friendly, but know what it takes to get things done, and are not afraid to challenge each other to achieve the very heights of what is possible.

Job Description:

We are seeking an excellent optical physicist to work within our technical team, to take the lead on aspects of our experimental development. The ideal candidate should have a PhD in quantum optics, AMO physics or other related field from a prestigious university, come with good references and be able to show examples of exceptional skill or talent in this field. We are particularly interested in candidates with prior experience in photonic quantum computing, non-linear or fibre optics, atom-light interactions and quantum memory.

Benefits:

We offer a friendly, collaborative and challenging work environment with benefits including a generous pension plan and holiday allowance. There are significant opportunities for learning and growth at the company as new, exciting responsibilities are provided to team members as the company progresses through different rounds of fundraising.

Principal Responsibilities:

- Take responsibility for bringing experimental projects to a successful completion. These projects may include (and please note that it is not important that one individual has skills across all of these areas as they may be covered by different individuals)
 - Development of ORCA's fibre-based quantum simulator,
 - Developing prototype systems for wavelength conversion
 - Developing prototype systems for narrowband single photon generation
 - Working with suppliers to develop integrated vapour cells and other components.
 - Pulse-carving and optical modulation
 - Building novel spectroscopy setups
 - Investigating and implementing new quantum memory protocols
 - Researching, testing and comparing different single-emitter single photons sources
 - Engineering projects focused on delivering better performance, reliability ruggedness and/or operability of prototype systems.
- Work with other team members, project manager and finance team to facilitate the smooth running of current and future projects. This may include:
 - proposal and patent writing,
 - developing budgets for future work,
 - developing accurate risk registers,
 - issue reporting and problem solving.

Job Requirements:

- PhD in Experimental Physics or Engineering
- Good track record of novel and successful problem solving in a research environment
- Excellent scientific talent demonstrated through a strong publication record and/or references.
- Strong interpersonal skills for effectively working in and managing teams
- Excellent problem solving skills, creative and analytical ability
- Applicants should feel energised by the thought of working within a dynamic small business environment.
- Be a self-starter who is comfortable managing individual and/or group responsibilities and deadlines.
- Commercial or financial awareness (desirable)

To apply:

To apply, please send a cover letter and a copy of your CV/resume (including publication record) to: careers@orcacomputing.com