Post-doctoral Research Positions in Quantum Computing

IBM Q Hub at NC State

We are seeking multiple post-doctoral research associates to participate in the new IBM Q Hub at NC State. This partnership between NC State, IBM, and the Hub Members is focused on growing the quantum computing ecosystem and advancing quantum computing, and will provide early access to the latest IBM Q commercial quantum computing systems.

Overview

On May 10, 2018, NC State and IBM jointly announced that NC State University had joined the IBM Q Network as the first university-based IBM Q Hub in the Americas. The Hub, led by NC State, will be structured as a hub and spoke model of engagement, and members can be from industry, academia, government, etc. Other announced IBM Q University Hubs include Keio University in Japan, University of Melbourne in Australia, and Oxford University in the UK. Over time it is envisioned that these and future hubs will share tools, lessons learned, best practices, etc., to facilitate the rapidly emerging field of quantum information science. The IBM Q Hub at NC State will commence formal operations October 1, 2018. Initially, Members will have access to IBM's 20 qubit machines followed by a next generation 50 qubit capability anticipated in the first quarter of 2019. Early usage is anticipated to be targeted towards software tools development, algorithms and applications, and education. The focus application areas will be quantum chemistry, machine learning, and optimization/financial modeling.

Primary Duties

The primary responsibilities in support of the Hub activities will be to assist in providing on-board training as well as ongoing technical assistance pertaining to quantum computing and the IBM Q system to Hub members. In addition, it is anticipated that significant effort will be devoted to personal and collaborative research related to quantum computing, such as applications, algorithms, and contributions to open source software stacks in support of quantum computing. Successful candidates will receive affiliation in the academic department most appropriate for their backgrounds and qualifications.

Minimum Qualifications

- PhD in Computer Science, Physics, Chemistry, Electrical and/or Computer engineering, Mathematics, or other field related to quantum computing
- PhD awarded no more than 5 years prior to the start of employment
- At least 1 year of experience directly related to quantum computing

Desired Qualifications

- Excellent oral and written communication skills
- Ability to work independently
- Strong record of peer-reviewed publications related to quantum computing

- Experience applying quantum computing to quantum chemistry, machine learning, or optimization/financial models
- Experience programming in Python

To apply, please see the NC State jobs posting at https://jobs.ncsu.edu/postings/107483.

AA/EOE. NC State University is an equal opportunity and affirmative action employer. All qualified applicants will receive consideration for employment without regard to race, color, national origin, religion, sex, age, veteran status, or disability. In addition, NC State welcomes all persons without regard to sexual orientation or genetic information. Individuals with disabilities requiring disability related accommodations in the application and interview process please call (919) 515--3148.