

Jiayu Zhang

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Research Interest

Everything about quantum, mainly on the theory: quantum computation, quantum information, quantum cryptography and so on.

Education

- **Boston University** 2017-Present
Ph.D Candidate in Computer Science, advised by Prof. Adam Smith
- **Pennsylvania State University** 2016-2017
Ph.D Candidate in Computer Science and Engineering, advised by Prof. Adam Smith
- **Tsinghua University** 2012-2016
Bachelor's degree in Software Engineering

Research Experience

- **Pennsylvania State University & Boston University** Sep 2016-Present
PhD Candidate & Research Assistant, advised by Prof. Adam Smith
Research field: quantum cryptography
- **Tsinghua University** Nov 2014-Jun 2016
Research Assistant, advised by Prof. Mingsheng Ying
Research field: quantum computing theory related to quantum programming

Honors and Achievements

- Academic Excellence Award 2013 & 2014
- Tsinghua Comprehensive Engineering Capabilities Contest, First Prize(Group, Captain) 2015

Papers and Thesis

- **Delegating Quantum Computation Using Only Hash Functions** 2018
By Jiayu Zhang
(arXiv:1810.05234)
- **A Study on the Periodicity of Quantum Markov Chains** 2016
By Jiayu Zhang, advised by Mingsheng Ying and Guiming Luo
(Undergraduate Thesis)

Internships and Projects

- **High Concurrency Online Ticket Selling and Message Push System** Fall 2014
Group work together with LeiYu Zhao, Yanzhe Yang, et. al
The system was used by tens of thousands of people in Tsinghua. My work is to use nginx to implement high performance and high concurrency web load distribution module, which is a key part in the high concurrency server.
- **Content Based Image Classification Project** Spring 2014
Group work together with Chengpeng Wang, Yanzhe Yang
We implemented an image classification program based on neural network and feature extraction.

Work Experience

- Teaching Fellow for Introduction to Computer Science Spring 2017
- Teaching Assistant for Data Structure and Algorithm Fall 2016

Skills

- **Computer Technologies:** Machine Learning, Web Development, Mobile Development, Numerical Computing and so on
- **Programming Languages:** Assembly, C, C++, Java, C#, Python, JavaScript and many
- **Languages:** Chinese(native), English

Hobbies

- **Chinese Chess(Xiangqi), Chess & Go**
Chinese Chess World Federation Master
World Xiangqi(Chinese chess) Federation Open Tournament - the 3rd Place(Group)
2d level on eweiki(an online Go platform)
- Table Tennis, Piano