

RUNZHOU TAO

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CONTACT INFORMATION

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EDUCATION

2019–2024 Ph.D., Department of Computer Science, Columbia University, New York, U.S.A.
2015–2019 Undergraduate, Yao’s class at Tsinghua University, Beijing, China

RESEARCH INTERESTS

Theory : Graph algorithm, online algorithm, hardness of approximation, quantum computing
System : Program analysis, verification, quantum system

RESEARCH EXPERIENCE

2018 Summer Carnegie Mellon University, Pittsburgh, PA, USA
Research Assistant, advised by [Venkatesan Guruswami](#)
2018 Spring Harvard University, Cambridge, MA, USA
Research Assistant, advised by [Boaz Barak](#)
2017 Summer The University of Hong Kong, Hong Kong, China
Research Assistant, advised by [Zhiyi Huang](#)

PUBLICATIONS IN THEORETIC COMPUTER SCIENCE

(Authors in all the following papers are listed in alphabet order.)

FOCS 2020 *Edge-Weighted Online Bipartite Matching* [\[link\]](#)
Best paper award Matthew Fahrbach, Zhiyi Huang, **Runzhou Tao**, Morteza Zadimoghaddam.
APPROX 2019 *Streaming Hardness of Unique Games* [\[link\]](#)
Venkatesan Guruswami, **Runzhou Tao**.
SODA 2019 *Tight Competitive Ratios of Classic Matching Algorithms in the Fully Online Model* [\[link\]](#)
Zhiyi Huang, Binghui Peng, Zhihao Gavin Tang, **Runzhou Tao**, Xiaowei Wu and Yuhao Zhang.

PUBLICATIONS IN COMPUTER SYSTEM

(Authors in all the following papers are listed in contribution order.)

Submitted to POPL 2021 *Gleipnir: Verified Error Bounds for Quantum Programs and Compiler Transformations*

Runzhou Tao, Yunong Shi, John Hui, Frederic T. Chong, Ronghui Gu.

Manuscript *Contract-based Verification of a Realistic Quantum Compiler* [\[link\]](#)
Yunong Shi, Xupeng Li, **Runzhou Tao**, Ali Javadi-Abhari, Andrew W. Cross, Frederic T. Chong, Ronghui Gu.

AWARDS

- 2020 FOCS 2020 **Best Paper Award**
- 2019 ACM/ICPC North America Regional Contests, **Finalist**
teammates: Hengjie Zhang, Zhengjia Xu
- 2019 ACM/ICPC Regional (New York), **Champion**
teammates: Hengjie Zhang, Zhengjia Xu
- 2019 **Yao Award**
- 2015 ACM/ICPC Regional (Hefei), **Gold Medal**
teammates: Yue Yu, Shuxin Chen
- 2014 Chinese Mathematical Olympiad, **Gold Medal**
- 2014 (China) National Olympiad in Informatics, **Silver Medal**

CODING SKILLS

C/C++, Java, Python, Matlab, Latex