# Hanlin Ren

https://hanlin-ren.github.io/
Last updated: Nov 2020

#### **Education**

August 2016 – Present

Tsinghua University, China

**Bachelor of Engineering** 

Major: Computer Science (Special Pilot CS Class, a.k.a Yao Class)

GPA: 3.83/4; rank: 8/38

#### **Research Interests**

I am interested in Algorithm Design and Computational Complexity.

#### **Publications**

(Note: in Theoretical Computer Science, the list of authors are usually sorted in alphabetical order.)

- Ran Duan, Yong Gu, and **Hanlin Ren**. Approximate Distance Oracles Subject to Multiple Vertex Failures. In *Proceedings of the 32nd ACM-SIAM Symposium on Discrete Algorithms* (SODA), 2021.
- Hanlin Ren. Improved Distance Sensitivity Oracles with Subcubic Preprocessing Time. In Proceedings of the 28th Annual European Symposium on Algorithms (ESA), 2020. Invited to the JCSS special issue for ESA 2020
- Lijie Chen and **Hanlin Ren**. Strong Average-Case Circuit Lower Bounds from Non-trivial Derandomization. In *Proceedings of the 52nd Annual ACM Symposium on Theory of Computing (STOC)*, 2020.

Invited to the SICOMP special issue for STOC 2020

Ran Duan and **Hanlin Ren**. Approximating All-Pair Bounded-Leg Shortest Path and APSP-AF in Truly-Subcubic Time. In *Proceedings of the 45th International Colloquium on Automata, Languages, and Programming (ICALP)*, 2018.

#### **Academic Talks**

Dec 2020 Approximate Distance Oracles Subject to Multiple Vertex Failures. Yaoclass Seminar.

Sep 2020 Improved Distance Sensitivity Oracles with Subcubic Preprocessing Time. ESA 2020 (virtual talk). https://youtu.be/2Z46AybFkJ8.

Jun 2020 Strong Average-Case Circuit Lower Bounds from Non-trivial Derandomization. STOC 2020 (virtual talk). https://youtu.be/xWDQ4Lef0Vs.

Mar 2020 Strong Average-Case Circuit Lower Bounds from Non-trivial Derandomization. Special Interest Group on Mathematics & Algorithms, Institute of Computing Technology, Chinese Academy of Science (virtual talk).

Jul 2018 Approximating All-Pair Bounded-Leg Shortest Path and APSP-AF in Truly-Subcubic Time.
ICALP 2018, Prague, Czech Republic.

## **Selected Awards**

Sep 2019 Yao Award, bronze prize

Sep 2017 Raidu "Future Star" Scholarship

Jul 2015 Gold medal (15th place) in Chinese National Olympiad in Informatics (NOI)

## Languages

Chinese native

English TOEFL 110 (Reading 30 + Listening 29 + Speaking 23 + Writing 28, May 2019)

## Misc

GRE score (May 2019): Verbal 161, Quantitative 170, AW 4.0