Hanlin Ren

✉ h4n1in.r3n@gmail.com　　✉ rhl16@mails.tsinghua.edu.cn　　📞 (+86) 18801156172
🌐 https://hanlin-ren.github.io/　　⬆ Last updated: Apr 2021

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.)

🔖 Yong Gu and **Hanlin Ren**. Constructing a Distance Sensitivity Oracle in $O(n^{2.5794}M)$ Time. To appear in ICALP 2021.

🔖 Ran Duan, Yong Gu, and **Hanlin Ren**. Approximate Distance Oracles Subject to Multiple Vertex Failures. SODA 2021.

🔖 **Hanlin Ren**. Improved Distance Sensitivity Oracles with Subcubic Preprocessing Time. 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. 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. ICALP 2018.

Manuscripts / In Submission

🔖 **Hanlin Ren** and Rahul Santhanam. A Relativization Perspective on Meta-Complexity. *Submitted.*

🔖 **Hanlin Ren** and Rahul Santhanam. Hardness of KT Characterizes Parallel Cryptography. *Submitted.*

Academic Talks

Apr 2021　　🔖 Hardness of KT Characterizes Parallel Cryptography.
Yaoclass Seminar.
Oxford-Warwick complexity meetings.

Jan 2021　　🔖 Approximate Distance Oracles Subject to Multiple Vertex Failures.
SODA 2021 (virtual talk). https://player.vimeo.com/video/496602190.

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

Academic Talks (Continued)

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/xWDQ4LefOVs`.
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.

Teaching Experience

2020 Fall	🔖	Design and Analysis of Algorithms (graduate level) *Instructor: Prof. Ran Duan* Teaching assistant

Selected Awards

Sep 2019	🔖	Yao Award, bronze prize
Sep 2018	🔖	Evergrande Scholarship
Sep 2017	🔖	Baidu "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