Hanlin Ren

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

Education

Aug 2016 – Jun 2021   🔖 **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

Publications

(Note: in theoretical computer science, the list of authors are usually sorted in alphabetical order.)

🔖 **Hardness of** KT **Characterizes Parallel Cryptography.**
  Hanlin Ren and Rahul Santhanam.
  CCC 2021. **Invited to the ToC special issue for CCC 2021**.

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

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

🔖 **Improved Distance Sensitivity Oracles with Subcubic Preprocessing Time.**
  Hanlin Ren.
  ESA 2020. **Invited to the JCSS special issue for ESA 2020**.

🔖 **Strong Average-Case Circuit Lower Bounds from Non-trivial Derandomization.**
  Lijie Chen and Hanlin Ren.
  STOC 2020. **Invited to the SICOMP special issue for STOC 2020**.

🔖 **Approximating All-Pair Bounded-Leg Shortest Path and APSP-AF in Truly-Subcubic Time.**
  Ran Duan and Hanlin Ren.
  ICALP 2018.

Manuscripts / In Submission

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

🔖 **Hardness on Any Samplable Distribution Suffices: New Characterizations of One-Way Functions by Meta-Complexity.**
  Rahul Ilango, Hanlin Ren, and Rahul Santhanam.

Academic Talks

🔖 **Constructing a Distance Sensitivity Oracle in** $O(n^{2.5794}M)$ **Time.**
  ICALP 2021 (online). http://youtu.be/uIFoucab6d4   Jul 2021

Academic Talks (Continued)

🔖 **Hardness of** KT **Characterizes Parallel Cryptography.**
CCC 2021 (online). http://youtu.be/esFxj1cNLCE   Jul 2021
Yaoclass Seminar.   Apr 2021
Oxford-Warwick complexity meetings (online).   Apr 2021

🔖 **Approximate Distance Oracles Subject to Multiple Vertex Failures.**
SODA 2021 (online). https://player.vimeo.com/video/496602190.   Jan 2021
Yaoclass Seminar.   Dec 2020

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

🔖 **Strong Average-Case Circuit Lower Bounds from Non-trivial Derandomization.**
STOC 2020 (online). https://youtu.be/xWDQ4LefOVs.   Jun 2020
SIGMA, ICT, Chinese Academy of Science (online).   Mar 2020

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

Teaching Experience

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

2021 Spring 🔖 **Theory of Computation** (undergraduate 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