

# Xiao Mao

(Last update: October 4, 2021)

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## Education

- **Massachusetts Institute of Technology** *2021 to present*  
M.Eng.  
– Thesis Supervisor: Virginia Vassilevska Williams
- **Massachusetts Institute of Technology** *2017 to 2021*  
B.S. in Computer Science and Engineering and in Mathematics

## Research and Work Experience

- **Massachusetts Institute of Technology** *Sep. 2021 to present*  
M.Eng. with thesis supervised by Professor Virginia Vassilevska Williams  
– Focus on algorithms and complexity.
- **Massachusetts Institute of Technology** *Feb. 2020 to Dec. 2020*  
UROP advised by Professor Michael Sipser  
– Research projects on algorithms and complexity. Finished two manuscripts.
- **Microsoft Corporation, Bellevue, WA** *Summer 2019*  
Intern  
– Studied Hopscotch Hashing and its performance, both theoretical and practical.
- **Pony.ai, Inc., Fremont, CA** *Summer 2018*  
Intern  
– Migrated the build tool from Bash to a 1000-line standardized Python script with improved functionality.

## Publications

- [1] Xiao Mao. Breaking the Cubic Barrier for (Unweighted) Tree Edit Distance. In *Proceedings of the 62nd IEEE Symposium on Foundations of Computer Science (FOCS)*, 2021.  
(Machtey Award for Best Student Paper)

## Older Manuscripts

- [1] Xiao Mao. Shortest non-separating st-path on chordal graphs. 2020
- [2] Xiao Mao. A natural extension to the convex hull problem and a novel solution. 2020

## Selected Awards and Scholarships

- **International Olympiad in Informatics**  
Silver medal *July to August 2017*
- **National Olympiad in Informatics, China**  
Gold medal, 1st place *July 2016*

## Talks

- **Breaking the Cubic Barrier for (Unweighted) Tree Edit Distance**
  - FOCS 2021 *Feb 2022*
  - Yao Class seminar *Sep 2021*

## Service

- Conference Reviewing: ITCS 2022