

# Lichen Zhang

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## EDUCATION

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**Massachusetts Institute of Technology**

*Ph.D in Mathematics*

Sep. 2022 - May 2028 (expected)

*Cambridge, MA*

**Carnegie Mellon University**

*M.S. in Computer Science*

June 2021 – May 2022

*Pittsburgh, PA*

**Carnegie Mellon University**

*B.S. in Computer Science*

Aug. 2017 – May 2021

*Pittsburgh, PA*

## RESEARCH INTERESTS

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- Convex and Non-Convex Optimization.
- Randomized Linear Algebra.
- Spectral Graph Theory.

## EXPERIENCE

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**Teaching Assistant (Instructor: Pravesh K. Kothari and Anil Ada)**

*Carnegie Mellon University*

Jan 2022 – May 2022

*Pittsburgh, PA*

- Teaching Assistant for The Computational Lens (15-155) class.

**Teaching Assistant (Instructor: Pravesh K. Kothari)**

*Carnegie Mellon University*

Jan 2021 – May 2021

*Pittsburgh, PA*

- Teaching Assistant for Undergraduate Complexity Theory (15-455) class.

**Undergraduate Research Assistant (Advisor: Gary L. Miller)**

*Carnegie Mellon University*

Oct. 2019 – Sep. 2020

*Pittsburgh, PA*

- Granted under CMU Summer Undergraduate Research Fellowship (SURF).
- Discrete optimization algorithm via ODE perspective.
- Combinatorial graph clustering algorithm breaks Cheeger's bound.

## PUBLICATIONS (AUTHOR NAMES IN ALPHABETICAL ORDER)

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*Dynamic Tensor Product Regression*

- Aravind Reddy, Zhao Song and **Lichen Zhang**
- To appear in thirty-sixth Conference on Neural Information Processing Systems (NeurIPS 2022)

*Fast Sketching of Polynomial Kernels of Polynomial Degree*

- Zhao Song, David P. Woodruff, Zheng Yu, and **Lichen Zhang**
- Published in the thirty-eighth International Conference on Machine Learning (ICML 2021).
- arxiv link: <https://arxiv.org/pdf/2108.09420.pdf>

## REFERENCES

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**Gary L. Miller**, Professor at Carnegie Mellon University

Email: [gm2f@andrew.cmu.edu](mailto:gm2f@andrew.cmu.edu)

**Zhao Song**, Researcher at Adobe Research

Email: [zsong@adobe.com](mailto:zsong@adobe.com)

**Pravesh K. Kothari**, Assistant Professor at Carnegie Mellon University

Email: [sawako@cs.cmu.edu](mailto:sawako@cs.cmu.edu)