

Lichen Zhang

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EDUCATION

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

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

EXPERIENCE

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)

Speeding Up Sparsification using Inner Product Search Data Structures

- Zhao Song, Zhaozhuo Xu and **Lichen Zhang**
- arxiv link: <https://arxiv.org/pdf/2204.03209.pdf>

Training Multi-layer Over-parametrized Neural Networks in Subquadratic Time

- Zhao Song, **Lichen Zhang** and Ruizhe Zhang
- arxiv link: <https://arxiv.org/pdf/2112.07628.pdf>

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

Gary L. Miller, Professor at Carnegie Mellon University

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Zhao Song, Researcher at Adobe Research

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Pravesh K. Kothari, Assistant Professor at Carnegie Mellon University

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