

# CHENGHUI LI

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## EDUCATION

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**University of Wisconsin-Madison** (WI); *Ph.D.* Statistics Aug. 2020 – May 2025 (Expected)  
**University of Wisconsin-Madison** (WI); *M.S.* Statistics Aug. 2018 – May 2020  
**Zhejiang University** (Zhejiang, China); *B.S.* Mathematics (Qiusi honor) Aug. 2015 – June 2019

## PREPRINT

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- Chenghui Li, Rishi Sonthalia, Nicolas García Trillos “Spectral neural networks: approximation theory and optimization landscape”

## PUBLICATION

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- Nicolas García Trillos, Pengfei He, Chenghui Li “Large sample spectral analysis of graph-based multi-manifold clustering” *Journal of Machine Learning Research (JMLR)* 24(143):1–71, 2023.
- Jelena Diakonikolas, Chenghui Li, Swati Padmanabhan, Chaobing Song “A Fast Scale-Invariant Algorithm for Non-negative Least Squares with Non-negative Data” *Neural Information Processing Systems (NeurIPS)* 2022, 35: 6264-6277.

## TEACHING

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- Fall 2023 [TA]: STAT 609 Mathematical Statistics I
- Spring 2023 [TA]: STAT 324 Introductory Applied Statistics for Engineers
- Fall 2022 [TA]: STAT 371 Introductory Applied Statistics for the Life Sciences.
- Fall 2020 [TA]: STAT 301 Introduction To Statistical Methods.

## TALKS

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- Poster presentation and online talk at NeurIPS2023, New Orleans, Dec. 2023
- Graph-based Techniques in Machine Learning minisymposium, Michigan State University, Oct. 2023
- Geometry and topology seminar at Max Planck Institute for Mathematics, Leipzig Germany, June 2023
- SIAM Conference on geometric and topological techniques in machine learning minisymposium, University State Utah, April 2023
- Poster presentation and online talk at NeurIPS2022, New Orleans, Sep. 2022
- Fall Workshop on Computational Geometry, Oct. 2021

## INVITED LONGER TERM VISIT

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- Max Planck Institute for Mathematics in the Sciences (Leipzig, Germany) Duration: 1 week in June 2023.

## SERVICE

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- I serve as assistant for 2022 Mathematics research community: Data Science at the Crossroads of Analysis, Geometry, and Topology at Buffalo, May 2022

## TECHNICAL STRENGTHS

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- Programming Languages: Python, Julia, R, Matlab

## AWARDS

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- NeurIPS 2023 Scholar Award, 2023 Oct.
- Visiting International Student Academic Excellence Award, Mar. 2019 & July 2019