Chenghui Li

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Education

University of Wisconsin-Madison, Wisconsin, U.S.   Aug. 2020 – Present
Ph.D. Candidate in Statistics

University of Wisconsin-Madison, Wisconsin, U.S.   Aug. 2018 – May 2020
M.S. in Statistics; *GPA: 4.00/4.00*

Zhejiang University, Zhejiang, China   Aug. 2015 – June 2019
B.S. in Mathematics and Applied Mathematics; *GPA: 3.77/4.00; Major GPA: 3.95/4.00*

Publication & Preprint

Projects & Experience

FFI Algorithm Performance in Bin-packing MinSum Problem   Feb. 2018 – June 2019
Theoretical proof Professor: Zhiyi Tan

- Used the construction method to improve the performance ratio lower bound from 1.25 to 1.35.
- Improved the asymptotic performance ratio upper bound from 1.83 to 1.5 by using the ideas from the construction method and proof by contradiction.

Artificial Intelligence and Industry Program in England   Aug. 2018

- Visited Imperial College London, the University of Oxford and the University of Cambridge to meet with professors and listen to their lectures about applications in artificial intelligence.

Lagrangian Flux Calculation via Donating Volumes in 3 Dimension   Oct. 2017 – Dec. 2017
Directed Study: Multigrid Method on Irregular Domains Professor: Qinghai Zhang

- Defined donating volume as a 3-dimensional generalization of donating region by using pathlines and streaklines, and then determined the generalized flux identity.
- Proved that donating volumes were index-by-index equivalent to the corresponding flux sets of the same volume by using ideas from geometry, fluid mechanics and homological algebra.

Teaching Experiences

TA of Statistics 301: Introduction To Statistical Methods   Aug. 2020 – Dec. 2020
Grader of Math 629: Introduction To Measure And Integration   Jan. 2020 – May 2020

Honors and Awards

- Visiting International Student Academic Excellence Award(twice) at Madison   Mar. 2019 & July 2019
- Chu Kochen Honors Program at Zhejiang University   June 2019
- Qiushi Pursuit Science Class(Major in Mathematics) at Zhejiang University   June 2019
- Putnam Exam Top 200   2019
- First Class Scholarship for Elite Students in Basic Science at Zhejiang University   Jan. 2017

Skills

- **Programming Languages**: Proficient in R, Python and Matlab, experienced in Latex, C, SQL and HTML
- **Languages**: English - Fluent, Mandarin - Native speaker

Miscellaneous

- **Personal website**: https://chl781.github.io/
- **Selected courses**: Convex Optimization, Mathematical Statistics, Real Analysis, Topics in Probability, Multi-variate Statistical Analysis, Statistical Methods, Statistical Learning Theory, Optimal Transport Machine Learning, Stochastic Processes, Time Series, Regression Analysis, Point Set Topology, Differential Geometry, Combinatorial Optimization