

# Zhaoqi Li

(612) 309-8148

zli9@uw.edu

<https://zhaoqil.github.io>

---

## RESEARCH INTEREST

Bandits, policy learning, personalized decision-making, online learning, causal inference

---

## EDUCATION

### UNIVERSITY OF WASHINGTON, SEATTLE, WA

2018 – Present

Doctor of Philosophy in Statistics

### MACALESTER COLLEGE, SAINT PAUL, MN

2014 – 2018

Bachelor of Arts, Mathematics and Computer Science

*Summa Cum Laude*, GPA 3.98/4.00

*Department Honor prize*: Konhauser Achievement Prize, Wagon Competition Prize

---

## PUBLICATIONS

- Z. Li, A. Luedtke. Estimation of subsidiary performance metrics under an optimal policy. In Progress.
- Z. Li, K. Jamieson, L. Jain. Optimal Exploration is no harder than Thompson Sampling. *arXiv preprint arXiv:2310.06069*. Submitted to AISTATS.
- L. Jain, Z. Li, E. Loghmani, B. Mason, H. Yoganarasimhan. Effective Adaptive Exploration of Prices and Promotions in Choice-Based Demand Models. Submitted to *Marketing Science*.
- Z. Li, L. Ratliff, H. Nassif, K. Jamieson, L. Jain (2022). Instance-optimal PAC algorithms for contextual bandits. *Advances in Neural Information Processing Systems*, 35, 37590-37603.
- J. A. Rathe, E. A. Hemann, J. Eggenberger, Z. Li, M. L. Knoll, C. Stokes, T. Y. Hsiang, J. Netland, K. K. Takehara, M. Pepper, M. Gale Jr (2021). SARS-CoV-2 Serologic Assays in Control and Unknown Populations Demonstrate the Necessity of Virus Neutralization Testing. *The Journal of infectious diseases*, 223(7), 1120–1131.
- B. Anzis, S. Chen, Y. Gao, J. Kim, Z. Li, R. Patrias (2018). Jacobi-Trudi determinants over finite fields. *Annals of Combinatorics*, 22(3), 447-489.
- Z. Li, Y. Ma, C. Vajiac, Y. Zhang, “Exploration of Numerical Precision in Deep Neural Networks”, (2018), *arXiv preprint arXiv:1805.01078*.
- Y. Gao, Z. Li, T. Vuong, L. Yang (2018). Toric Mutations in the dP2 Quiver and Subgraphs of the dP2 Brane Tiling. *The Electronic Journal of Combinatorics*, 26(2), P2-19.

---

## TEACHING EXPERIENCE

### TEACHING ASSISTANT

Seattle, WA

Department of Statistics, University of Washington

September 2018 - Present

- STAT 340: Introduction to Probability and Mathematical Statistics I Fall 2018
- STAT 221: Statistical Concepts and Methods for the Social Sciences Winter 2019
- STAT 529: Sampling Survey Techniques Spring 2019
- STAT 535: Statistical Learning: Modeling, Prediction, and Computing Fall 2019, Fall 2020, Fall 2021
- STAT 341: Introduction to Probability and Mathematical Statistics II Winter 2021
- STAT 391: Quantitative Introductory Statistics for Data Science Spring 2021

## LEAD TUTOR

Seattle, WA

Department of Statistics, University of Washington

September 2020 - September 2021

- Assist Director of the Statistics Tutor and Study Center and point of contact for tutoring requests
- Responsible for hiring new tutors and providing TA and tutor training
- Organize the quarterly schedule of tutors for the Statistics Tutor and Study Center

## TUTOR

Seattle, WA

Department of Statistics, University of Washington

September 2019 - June 2020

- Host drop-in tutoring sessions in the Statistics Tutor and Study Center
- Help other tutors answer questions from advanced undergraduate and graduate classes

## STUDENT MENTOR

Seattle, WA

Department of Statistics, University of Washington

January 2020 - December 2020

- Mentor undergraduate students in the Directed Reading Program
- Prepare reading materials and host meetings each week
- Help the student prepare their final presentation and write-up

## TEACHING ASSISTANT

Saint Paul, MN

Department of Mathematics, Statistics and Computer Science, Macalester College

September 2015 - Spring 2018

- MATH 378: Complex Analysis
- MATH 494-01: Cryptography/Number Theory
- MATH 494: Projects in Data Science
- MATH/COMP 365: Computational Linear Algebra
- COMP 110: Data/Computing Fundamentals

## WORK EXPERIENCE

---

### APPLIED SCIENTIST INTERN

Seattle, WA

Amazon Inc.

June – September 2020, June – September 2021

*Project 1: Adaptive Experimental Design for Time Variation*

- Conducted real data analysis to demonstrate the existence of time variation phenomenon in real life
- Implemented bandit algorithms robust to time variation to help with auto decision making

*Project 2: Structured Multivariate Testing*

- Implemented graph optimization algorithms that improves the current framework in multivariate testing use case
- Conducted simulation analysis to study performance of the algorithm in different cases

## SKILLS

---

*Programming Languages:* Proficient in Python, Java, R, Matlab, Mathematica. Familiar with C++

*Languages:* English, Chinese (Mandarin)

## LEADERSHIP EXPERIENCE AND SERVICE

---

### REVIEWS

- Reviewing applications for the Department of Statistics at the University of Washington
- Reviewer of NeuRIPS 2022, NeuRIPS 2023, AISTATS 2022

### MATHEMATICAL PROBLEM SOLVING CLUB, MACALESTER COLLEGE

*Co-chair*

January 2017 – May 2018

- Organize a weekly meeting on mathematical problem solving
- Prepare interesting mathematics problems and presentations on famous mathematicians