

# Zhaoqi Li

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<https://zhaoqil.github.io>

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## RESEARCH INTEREST

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Bandits, online learning, adaptive experimentation, policy learning, causal inference

## EDUCATION

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**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

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- **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.
- 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.

### Submitted works

- **Z. Li**, K. Jamieson, L. Jain. Optimal Exploration is no harder than Thompson Sampling. *arXiv preprint arXiv:2310.06069*. Submitted to AISTATS.
- **Z. Li**, H. Nassif, A. Luedtke (2024). Estimation of subsidiary performance metrics under an optimal policy. *arXiv preprint arXiv:2401.04265*. Submitted to Statistica Sinica.
- L. Jain, **Z. Li**, E. Loghmani, B. Mason, H. Yoganarasimhan. Effective Adaptive Exploration of Prices and Promotions in Choice-Based Demand Models. Major revision at *Marketing Science*.

### Working papers

- **Z. Li**, Y. Ma, C. Vajiac, Y. Zhang (2018). Exploration of Numerical Precision in Deep Neural Networks. *arXiv preprint arXiv:1805.01078*.

## TEACHING EXPERIENCE

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## 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

## WORK EXPERIENCE

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### 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 production
- Implemented bandit algorithms robust to time variation to help with auto decision making

*Project 2: Structured Multivariate Testing*

- Implemented a graph optimization algorithm to improve the production multivariate testing framework
- Conducted simulation analysis to study performance of the algorithm in different cases

## SKILLS

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

*Languages:* English, Chinese (Mandarin)

## LEADERSHIP EXPERIENCE AND SERVICE

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### REVIEWS

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