Harrison H Li
hli90722@stanford.edu

Education

Ph. D. in Statistics, June 2025 (expected) – Stanford University. Advised by Prof. Art B. Owen.

A. B. in Statistics and Mathematics, May 2018 – Harvard University (*summa cum laude* with Highest Honors)

- Thesis: Generalized linear models for post-processing of multi-model ensemble precipitation forecasts. Supervised by Prof. Joseph Blitzstein.

Teaching experience

Graduate Teaching Assistant, Stanford University

- R for Data Science, *TA*, Spring 2024
    - Intensive one week course offered by Stanford Medicine's REACH Initiative to students of Historically Black Colleges and Universities
- Stats 32 (Introduction to R for Undergraduates), ***Instructor***, Spring 2024
- Stats 206 (Multivariate Analysis), *TA*, Autumn 2023
- Stats 116 (Theory of Probability), ***Instructor***, Summer 2023
- Stats 32 (Introduction to R for Undergraduates), ***Instructor***, Spring 2023
- Stats 200 (Introduction to Statistical Inference), *TA*, Autumn 2022
- Stats 32 (Introduction to R for Undergraduates), ***Instructor***, Spring 2022
- Stats 200 (Introduction to Statistical Inference), *TA*, Winter 2022
- Stats 300a (Theory of Statistics I), *TA*, Autumn 2021
- Stats 60 (Introduction to Statistical Methods: Precalculus), *TA*, Spring 2021
- Stats 216 (Introduction to Statistical Learning), *TA*, Winter 2021

Undergraduate Course Assistant, Harvard University

- Stat 111 (Introduction to Statistical Inference), Spring 2018
- Stat 110 (Introduction to Probability), Fall 2017
- Stat 171 (Introduction to Stochastic Processes), Spring 2017
- Stat 110 (Introduction to Probability), Fall 2016
- Math 21b (Linear Algebra and Differential Equations), Spring 2016
- Math 21a (Multivariable Calculus), Fall 2015

Awards

Sequoia Hall Prize for Teaching Excellence, 2024

Stanford University Statistics Department Teaching Assistant Awards, 2022
Derek Bok Q Awards Certificate of Distinction, 2016, 2017

Journal articles and preprints

Li, H., & Yu, Chaoyu. (2024). Setting the duration of online A/B experiments. [preprint]

Li, H. (2024). Efficient combination of observational and experimental datasets under general restrictions on outcome mean functions. [preprint]

Li, H., & Owen, A. B. (2024). Double machine learning and design in batch adaptive experiments. *Journal of Causal Inference*, 12(1), 20230068. [journal link]

Li, H., & Owen, A. B. (2023). A general characterization of optimal tie-breaker designs. *The Annals of Statistics*, *51*(3), 1030-1057. [journal link]

Lemhadri, I., **Li, H.,** & Hastie, T. (2022). RbX: Region-based explanations of prediction models. [preprint]

Cronin, T. W., **Li, H.**, & Tziperman, E. (2017). Suppression of Arctic air formation with climate warming: investigation with a two-dimensional cloud-resolving model. *Journal of the Atmospheric Sciences*, *74*(9), 2717-2736.

Li, H., & Colle, B. A. (2016). Future changes in convective storm days over the northeastern United States using linear discriminant analysis applied to CMIP5 predictions. *Journal of Climate*, *29*(12), 4327-4345.

Li, H., & Colle, B. A. (2014). Multidecadal changes in the frequency and ambient conditions of warm season convective storms over the northeastern United States. *Journal of Climate*, *27*(19), 7285-7300.

Selected talks and presentations

Causal Science Center Conference — October 2024, Stanford, CA
Efficient combination of observational and experimental datasets under general restrictions on outcome mean functions

American Causal Inference Conference (poster) — May 2024, Seattle, WA
Efficient combination of observational and experimental datasets under general restrictions on outcome mean functions.

Joint Statistical Meetings — August 2023, Toronto, ON, Canada
Optimal batch adaptive experiment design for double machine learning

American Causal Inference Conference (poster) — May 2023, Austin, TX
Adaptive experiment design for efficient semiparametric estimation in the partially linear model

Industrial Affiliates Annual Conference — November 2022, Stanford, CA
Optimality in tie-breaker designs and applications to evaluating social programs

Online Causal Inference Seminar — May 2022, remote
A general characterization of optimal tie-breaker designs [slides][video]

California Econometrics Conference (poster session) May 2022, Stanford, CA
A general characterization of optimal tie-breaker designs

94th Annual Meeting of the American Meteorological Society Feb. 2014, Atlanta, GA
Multidecadal changes in the frequency and ambient conditions of warm season convective storms over the northeastern United States

Honors and awards

Student and Early-Career Travel Award (Joint Statistical Meetings), 2023
Student Travel Award for Joint Statistical Meetings (San Francisco Bay Area Chapter of the American Statistical Association), 2023
Stanford Interdisciplinary Graduate Fellowship, 2023
NSF Graduate Research Fellowships Program – Honorable Mention, 2021
Phi Beta Kappa Senior 48, 2017
Program for Research in Science in Engineering (PRISE) Fellow, 2015
Detur Book Prize, 2015
Intel Science Talent Search Semifinalist, 2014
Siemens Science and Technology Competition Semifinalist, 2014
Davidson Fellow, 2013

Service

Stanford University Department of Statistics Qualifying Exam Reader (Applied Statistics), 2024

Reviewer for *Journal of Causal Inference* and *Management Science*

Non-academic employment

Data Science Intern. Waymo, LLC. Mountain View, CA. Jun. 2024 – Aug. 2024

- Data fusion methods and covariate adjustment for narrower weighted confidence intervals

Independent Contractor. The Policy Lab, Brown University. Remote. Jul. 2023 – Present

- Analyzing the effectiveness of Rhode Island's Reemployment Services and Eligibility Assessment (RESEA) program on improving short-term and long-term employment outcomes in a multi-year randomized controlled trial run by the Rhode Island Department of Labor and Transportation. End-to-end ownership of data analysis pipeline as technical lead.

Data Science Intern. Google, LLC (YouTube). San Bruno, CA. Jun. 2022 – Sep. 2022

- Developed novel methodology and tooling based on mixed effects modeling and estimation for determining size and duration of online A/B tests. Version of tool enabled by default on all YouTube A/B tests.

- Rigorously evaluated state-of-the-art approaches for sequential A/B testing

Quantitative Trader. Five Rings, LLC. New York, NY. Aug. 2018 – Jul. 2020

- Led trading execution and risk management for two major markets
- Mentored four interns and new hires, including Ph.D. graduates, on research projects to discover trading signals
- Developed business logic for new trading robot
- Generated positive trading strategies with creative application of statistical learning tools using R

Quantitative Trading Intern. Susquehanna International Group, LLC. Bala Cynwyd, PA. Jun. 2017 – Aug. 2017

Trader Intern. IMC Financial Markets. Chicago, IL. Jun. 2016 – Aug. 2016