Nina Galanter

galanter@uw.edu

Updated January 2025

EDUCATION

University of Washington, Seattle, WA
Ph.D., Biostatistics, June 2025 (Expected)
Dissertation: Topics in Causal Inference for Individualized Treatment
Advisors: Marco Carone and Alex Luedtke

Grinnell College, Grinnell, IA
B.A., Mathematics, May 2018

PUBLICATIONS

Galanter, N., Carone, M., Kessler, R.C., Luedtke, A. (2024). Can the potential benefit of individualizing treatment be assessed using trial summary statistics alone? *American Journal of Epidemiology*
https://doi.org/10.1093/aje/kwae040

Wu, J., **Galanter, N.**, Shortreed, S. M., Moodie, E. E. M. (2022). Ranking tailoring variables for constructing individualized treatment rules: an application to schizophrenia. *Journal of the Royal Statistical Society: Series C.*
https://rss.onlinelibrary.wiley.com/doi/10.1111/rssc.12533

Galanter, N., Silva, D., Jr., & Rowell, J., Rychtář, J. (2017). Resource Competition Amid Overlapping Territories: The Territorial Raider Model Applied to Multi-Group Interactions. *Journal of Theoretical Biology.*
http://dx.doi.org/10.1016/j.jtbi.2016.10.007

Galanter, N., Silva, D., Jr., Rychtář, J., & Rowell, J. (2016). The Territorial Raider Game and Graph Derangements. *Discrete Applied Mathematics.*
http://dx.doi.org/10.1016/j.dam.2016.03.016

RESEARCH EXPERIENCE

Graduate Student Researcher, September 2020 – Present
Department of Biostatistics, University of Washington, Seattle, WA
Dissertation Advisors: Alex Luedtke, Ph.D. and Marco Carone, Ph.D.

- Dissertation research on causal inference methods for optimal treatment rules.
- First project involves mathematical bounds based on summary statistics for the benefit of an optimal treatment rule. Results published and R package implementing method is on GitHub.
- Second two projects involve nonparametric methods for inference for optimal treatment rules under constraints on a risk outcome. Manuscript and an R package are in progress.

Graduate Student Researcher, September 2024 – Present
Department of Biostatistics, University of Washington, Seattle, WA
Supervisor: Lyndia Brumback, Ph.D.

- Conducting the statistical analysis for the results of a clinical trial on an intervention to facilitate goals-of-care discussions between patients and providers in a hospital palliative care setting.
- Outcomes of interest include NLP-derived outcomes, intensity of care outcomes, and patient-reported outcomes and involve both electronic health record and survey data.

Graduate Student Researcher, June 2023 – Present
Vaccine and Infectious Disease Division, Fred Hutch Cancer Research Center, Seattle, WA
Principal Investigator: Jim Boonyaratanakornkit, Ph.D.

- In collaboration with research team, created a statistical analysis plan, conducted the analysis, and am contributing to the manuscript for a time-to-event analysis of an observational cohort.

Graduate Student Researcher, March 2020 – September 2024
Kaiser Permanente Washington Health Research Institute, Seattle, WA
Supervisor: Susan Shortreed, Ph.D.

- Multiple projects about using marginal structural models to estimate optimal treatment rules and their values. One paper published and another manuscript submitted.

Statistical Consultant, January 2022 – March 2022
Department of Biostatistics, University of Washington, Seattle, WA
Supervisors: Katie Kerr, Ph.D., and Tamre Cardoso, Ph.D

- Led and participated in hour-long consulting sessions for researchers across the University of Washington on topics including study design, analysis plan, and implementation in R.
- With another student, created and implemented an analysis plan and wrote a report about the association between receiving a left ventricular assist device and time to heart transplant.

Student Researcher, June 2017 – August 2017
Institute for Pure and Applied Mathematics RIPS Program, Hong Kong
Supervisor: Albert Ku, Ph.D.

- Worked as part of a team analyzing communication frequency in distributed computing, sponsored by Microsoft Research Asia. Found theoretical results and presented findings.

Student Researcher, May 2016 – August 2016
Department of Mathematics, North Carolina State University, Raleigh, NC
Supervisor: Hien Tran, Ph.D.

- Worked as part of a team on an applied machine learning project sponsored by the US Environmental Protection Agency. Wrote a report and presented findings.

Student Researcher, May 2015 – July 2015
Mathematics and Statistics Dept., University of North Carolina Greensboro, Greensboro, NC
Supervisor: Jan Rychtář, Ph.D.

- With another student, worked on a game-theoretical and mathematical biology project, which resulted in two published papers.

TEACHING EXPERIENCE

INSTRUCTOR

Regression Methods in the Health Sciences, University of Washington
Spring 2023

- Intermediate undergraduate course on regression methods, including linear regression, logistic regression, and Cox proportional hazards. Students used R programming language.
- Responsible for curriculum and all course materials, including lectures, quizzes, R labs, and data analysis project.
- Implemented a specifications-based grading system.

MENTOR

Statistics Directed Reading Program, University of Washington
Winter 2025 Topic: Target Trial Framework for Causal Inference
Winter and Fall 2023 Topic: Survival Analysis
Winter and Spring 2022 Topic: Optimal Treatment Rules

- One-on-one mentoring of undergraduates through quarter-long reading projects culminating in a final report and presentation.
- Created the concept and curriculum for each project.

TEACHING ASSISTANT

Categorical Data Analysis in Epidemiology, University of Washington

Fall 2024

- Created discussion section materials, ran discussion sections, held office hours, edited exams, and graded for a categorical data analysis course for graduate students in the health sciences.

Introduction to Survival Analysis, University of Washington Summer Institutes

Summer 2024

- Answered questions during lectures and via the course Slack for an online short course on survival analysis for professionals in public health and medicine.

Survival Data Analysis in Epidemiology, University of Washington

Winter 2023

- Created discussion section materials, ran discussion sections, held office hours, created rubrics, and graded for a categorical data analysis course for graduate students in the health sciences.

Biostatistics for the Health Sciences, University of Washington

Winter 2022, Winter 2020, Fall 2019

- Created discussion section materials, ran discussion sections, held office hours, and graded for an introductory undergraduate biostatistics course.

OTHER

Grader, Introduction to Data Science, Grinnell College

Spring 2018

- Created rubric and graded homework for an introductory undergraduate data science course.

Grader, Statistical Modeling, Grinnell College

Fall 2017

- Created rubric and graded homework for an intermediate undergraduate statistics course.

Course Mentor, Applied Statistics, Grinnell College

Fall 2015

- Provided guidance during in-class activities and held review sessions before exams for an introductory undergraduate statistics course.

HONORS AND AWARDS

University of Washington

National Science Foundation Graduate Research Fellowship, March 2021

Department of Biostatistics Merit Award, April 2019

ARCS Foundation Scholar, April 2019

Grinnell College

Grinnell College Linn Smith Prize in Mathematics, April 2018

Honors in Mathematics, May 2018

Phi Beta Kappa Member, April 2017

Goldwater Scholarship, March 2017

Grinnell College Pamela Ferguson Prize in Mathematics, February 2017

Phi Beta Kappa Beta Chapter of Iowa Sophomore Book Award, April 2016

PRESENTATIONS AND POSTERS

PRESENTATIONS

Inference for Optimal Treatment Rules under Stratum-wise Constraints for Discrete Rules

WNAR Annual Meeting, Fort Collins, CO, June 11, 2024

Joint Statistics Meetings, Toronto, ON, August 10, 2023

University of Washington Biostatistics Student Seminar, Seattle, WA, February 15, 2023

Variable Selection for Estimation of Interpretable Treatment Rules under Confounding

University of Washington Biostatistics Student Seminar, Seattle, WA, November 2, 2022

Can the potential benefit of individualizing treatment be assessed using trial summary statistics alone?

Joint Statistics Meetings, Washington DC, August 9, 2022

University of Washington Biostatistics Student Seminar, Seattle, WA, February 2, 2022

Efficient Communication in Distributed Machine Learning

Nebraska Conf. for Undergraduate Women in Mathematics, Lincoln, NE, January 27, 2018

Grinnell Mathematics and Statistics Student Seminars, Grinnell, IA, February 6, 2018

Machine Learning for the Classification of Toxicological Effects

Grinnell Mathematics and Statistics Student Seminars, Grinnell, IA, September 14, 2016

Joint Mathematics Meetings, Atlanta, GA, January 7, 2017

Machine Learning, Nash Equilibria, and Derangements: The Territorial Raider Game

Grinnell Mathematics and Statistics Student Seminars, Grinnell, IA, October 6, 2015

UNCG Regional Mathematics and Statistics Conference, Greensboro, NC, November 7, 2015

Joint Mathematics Meetings, Seattle, WA, January 8, 2016

Nebraska Conf. for Undergraduate Women in Mathematics, Lincoln, NE, January 31, 2016

POSTERS

Efficient Communication in Distributed Machine Learning

Joint Mathematics Meetings, San Diego, CA, January 12, 2018

The Territorial Raider Model with Strategic Movement and Multi-Group Interactions

Intl. Symposium on Biomath. and Ecology Edu. and Research, Normal, IL, October 9, 2015

Joint Mathematics Meetings, Seattle, WA, January 8, 2016

PROFESSIONAL SERVICE

University of Washington

Member, Biostatistics Curriculum Committee, September 2023 – Present

Member, Biostatistics Equity, Diversity, and Inclusion Committee, September 2019 – Present

Member, Biostatistics Activities and Events Squad, February 2019 – Present

Facilitator, Biostatistics Student Seminar, September 2022 – June 2024

Facilitator, Statistical Education Reading Group, January 2022 – June 2023

Co-leader, Statisticians and Biostatisticians of Underrepresented Genders, October 2020 – June 2023

Member, Admissions Committee, September 2022 – March 2023

Senator, Graduate and Professional Student Senate, Sept. 2019 – June 2020; Sept. 2021 – June 2022

Grinnell College

President, Mathematics Student Educational Policy Committee, August 2017 – May 2018

Member, Mathematics Student Educational Policy Committee, August 2016 – December 2016

Reviewer

Biometrics