

Kellie Ottoboni

Curriculum Vitae

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Education

- 2014–present **PhD, Statistics**, *University of California, Berkeley*.
Advisor: Philip B. Stark
Anticipated May 2019
- 2010–2014 **BA, Applied Mathematics and BA, Statistics**, *University of California, Berkeley*.
High Distinction in General Scholarship
Honors in Statistics

Research Interests

Nonparametric statistics, causal inference, reproducibility and open science, applications in health and social science

Awards

- 2018–2019 UC Dissertation Year Fellowship
2018 Institute of Mathematical Statistics Hannan Graduate Student Travel Award
- 2015–2018 Berkeley Institute for Data Science Fellowship
2015 Microsoft Research Graduate Women's Scholarship
2014 UC Berkeley Statistics Department Citation
2010 Ligurians of the World Scholarship

Academic Experience

- 2015–present **Graduate Student Researcher**, *Berkeley Institute for Data Science*.
–Spent 50% of my time at the institute, attended weekly talks and participated in events to spread data science concepts and tools across domains
–Active member of the Reproducibility and Open Science Working Group
- 2013–2014 **Research Assistant**, *Nielsen Lab*.
–Developed a network-based multiple testing correction procedure
–Performed statistical analysis of gene expression data in a study of rheumatoid arthritis
- 2010 **Biostatistics Intern**, *Stanford School of Medicine*.
–Created presentations to teach doctors how to gather data using new database system
–Performed exploratory data analysis on clinical data

Teaching

- 2018 **Instructor**, *Software Carpentry Workshop*, BIDS.
Taught Unix shell and git in a two-day workshop for graduate students.

- 2016 **Graduate Student Instructor**, *UC Berkeley Department of Statistics*.
Statistics 215B: Statistical Models: Theory and Application
- 2015 **Graduate Student Instructor**, *UC Berkeley Department of Statistics*.
Statistics 20: Introduction to Probability and Statistics
- 2013–2014 **Grader**, *UC Berkeley Department of Mathematics*.
Math 53, Multivariable Calculus; Math 54, Linear Algebra and Differential Equations
- 2012–2014 **Lab Assistant and Grader**, *UC Berkeley Department of Statistics*.
–Lab Assistant: Statistics 133, Computing with Data
–Grader: Statistics 133, Computing with Data; Statistics 154, Machine Learning

Publications

- [1] Kellie Ottoboni, Fraser Lewis, and Luigi Salmaso. An empirical comparison of parametric and permutation tests for regression analysis of randomized experiments. *Statistics in Biopharmaceutical Research*, 0(0):1–10, 2018.
- [2] Kellie Ottoboni. A statistical analysis of salt and mortality at the level of nations. In Justin Kitzes, Daniel Turek, and Fatma Deniz, editors, *The Practice of Reproducible Research: Case Studies and Lessons from the Data-Intensive Sciences*. University of California Press, Oakland, CA, 2017.
- [3] K. Jarrod Millman, Kellie Ottoboni, Naomi A. P. Stark, and Philip B. Stark. Reproducible applied statistics: Is tagging of therapist-patient interactions reliable? In Justin Kitzes, Daniel Turek, and Fatma Deniz, editors, *The Practice of Reproducible Research: Case Studies and Lessons from the Data-Intensive Sciences*. University of California Press, Oakland, CA, 2017.
- [4] Anne Boring, Kellie Ottoboni, and Philip B. Stark. Student evaluations of teaching (mostly) do not measure teaching effectiveness. *ScienceOpen Research*, January 2016.

Presentations

- 2018 **From Paper to Program: Challenges of Implementing Permutation Tests**, *International Society for Nonparametric Statistics Conference*, contributed talk.
- 2017 **Nonparametric Risk Attribution for Factor Models of Portfolio Returns**, *Center for Risk Management Research Seminar*, invited talk.
- 2017 **Simple Random Sampling: Not So Simple**, *Center for Risk Management Research Seminar*, invited talk.
- 2017 **A Statistical Analysis of Salt and Mortality at the Level of Nations**, *Book Launch: The Practice of Reproducible Research*, lightning talk.
- 2016 **permuter: An R Package for Randomization Inference**, *UseR! Conference*, contributed talk.
- 2016 **permute: A Python Package for Randomization Inference**, *International Society for Nonparametric Statistics Conference*, contributed talk.

- 2016 **Model-based matching for causal inference in observational studies**, *Center for Risk Management Research Seminar*, invited talk.
- 2016 **Model-based matching for causal inference in observational studies**, *BSTARS Conference*, lightning talk.
- 2015 **Student Evaluations of Teaching (Mostly) Do Not Measure Teaching Effectiveness**, *Moore-Sloan Data Science Environments Summit*, lightning talk.
- 2015 **Is Salt Bad for Nations?**, *BSTARS Conference*, poster.
- 2014 **Undergraduate commencement speech**, *Statistics Department Commencement*.
- 2014 **A Greedy Algorithm for Gene Set Enrichment Analysis Using the Protein Network**, *Cal Day*, poster.

Academic Service

- 2016–2017 **Co-president**, *Statistics Graduate Student Association*.
- 2015–2016 **Social Chair**, *Statistics Graduate Student Association*.
- 2014 **Mentor**, *Berkeley Undergraduate Mathmentoring Program*.
- 2014 **Hospitality Committee**, *Statistics Graduate Student Association*.

Work Experience

- 2017 **Summer Intern**, *State Street Global Exchange, GX Labs*.
Developed methods for risk attribution in simulated portfolio risk using factor models
- 2011–2012 **Student Research Analyst**, *Berkeley Law Financial Aid*.
Aggregated data from databases to administer financial aid and identify trends
- 2008–2010 **Oboe teacher**.
Taught basic musicianship, music theory, and instrument technique to preteen students

Skills

- Mathematical Computing R, Rstudio, Python, Matlab
- Publishing L^AT_EX, Jupyter, knitR, Sphinx
- Other Unix, git, GitHub, Microsoft Office