Sheridan Grant — Resume

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I develop statistical solutions to challenging social science problems. At Zillow Offers, I modeled housing economics with causal inference and ML techniques, as well as conducting algorithmic fairness analyses. During my PhD, I researched causal approaches to assessing fairness in peer review. In the more distant past I have worked on energy market modeling, algebraic geometry, image processing, high-dimensional hypothesis testing, and genomics.

Employment

Applied Scientist — June 2021–Aug 2022
Zillow Offers & Zillow Experimentation Platform
- Corrected bias ($100MMs/year) in home resale value model induced by variations in ZO offer strength
- Created time-to-list forecast that decreased bias by 60% vs heuristic model
- Increased experimentation capacity by optimizing Google Analytics custom dimension utilization
- Implemented CUPED and outlier capping for trial acceleration

Instructor; Teaching & Research Assistant — Sept 2016–Aug 2021
University of Washington

AI Intern — Summer 2020
Zillow Zestimate

Research Intern — Summer 2018
Microsoft Research Genomics

Consultant — June 2015–July 2016
Energy and Environmental Economics

Software & Skills

- **Programming:** Proficient in Python, R, SQL. Familiar with C++, Java, Bash, Matlab, Mathematica, Haskell.
- **Libraries:** numpy, pandas, scipy, sklearn, statsmodels, tensorflow, pymc3, lightgbm, matplotlib, seaborn, bs4.
- **Software:** Git, Spark, Airflow, AWS S3 & EC2, PyCharm, Jupyter, Excel, Ubuntu, GATK, Azure, ArcGIS.
- **targetedordertest**: R package implementing the statistical methods from Grant, Perlman, and Grant, 2020.

Education

University of Washington — Sept 2016–Aug 2021
PhD, Statistics

Pomona College — Aug 2011–May 2015
B.A. magna cum laude, Mathematics (computer science minor)

Publications

- **Sheridan Grant**, Marina Meilă, Elena Erosheva, and Carole Lee: "Refinement: Measuring informativeness of ratings in the absence of a gold standard." British Journal of Mathematical and Statistical Psychology, 2022.
- **Sheridan Grant:** "Causality, Fairness, and Information in Peer Review." ProQuest [dissertation publisher], 2021.
- Carole Lee, **Sheridan Grant**, and Elena Erosheva: "Alternative grant models might perpetuate Black–White funding gaps." The Lancet, 2020.
- Elena Erosheva, **Sheridan Grant**, Mei-Ching Chen, Mark Lindner, Richard Nakamura, and Carole Lee: "Criterion Scores Completely Account for Racial Disparities in NIH Grant Review." Science Advances, 2020.
- **Sheridan Grant**, Michael Perlman, and Darren Grant: "Targeted testing for bias in order assignment, with an application to Texas election ballots." Journal of Statistical Planning and Inference, 2020.
- Eleanor Anthony, **Sheridan Grant**, Peter Gritzmann, and J. Maurice Rojas: "Polynomial-Time Amoeba Neighborhood Membership and Faster Localized Solving." In "Topological and Statistical Methods for Complex Data" 1st ed. Springer-Verlag Berlin Heidelberg, 2015. *Mathfest undergraduate presentation award winner*.
- Technical reports for energy market models: Nevada Net Energy Metering, Energy Imbalance Markets 1 & 2.