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# Aaron Fisher

#### Education

 $2011\mathrm{-Present}$ 

**PhD Candidate**, Johns Hopkins Bloomberg School of Public Health, Baltimore, MD.

Advisors: Vadim Zipunnikov & Brian Caffo

2006-2010

**BA in Economics**, *University of Rochester*, Rochester, NY.

Summa cum laude

## Academic Papers

Peer-Reviewed Publications

2014 **AJ Fisher**, GB Anderson, R Peng, J Leek. 2014. A randomized trial in a massive online open course shows people don't know what a statistically significant relationship looks like, but they can learn. *PeerJ*. (<u>link</u>; 3,437 unique visitors as of December 3, 2014)

Submitted

- 2014 **AJ Fisher**, B Caffo, B Schwartz, V Zipunnikov. 2014. Fast, Exact Bootstrap Principal Component Analysis for p > 1 million. Resubmitted at Journal of the American Statistical Association (TM). (link).
- 2014 **AJ Fisher**, H Jaffee, M Rosenblum. 2014. interAdapt An Interactive Tool for Designing and Evaluating Randomized Trials with Adaptive Enrollment Criteria. (<u>link</u>).

Reviewer

2014 Risk Analysis

#### Software

bootSVD

An R package for implementing fast, exact bootstrap principal component analysis and singular value decompositions for high dimensional data (i.e. > 1 million covariates). The GitHub version of this package allows for matrices too large for memory to be entered as class ff objects, with contents stored on disk. (CRAN link; GitHub link)

ggBrain An R package for beautiful brain image figures (GitHub link)

interAdapt An interactive tool for designing and evaluating randomized trials with adaptive enrollment criteria (Shiny App link; Documentation link; CRAN link; Github link).

Professional Experience

2010 (Summer) Structured Decisions Corporation, Newton, MA.

Intern Analyst - Background research project for a linear programming application

Computer skills

Advanced I Skills

Basic Skills git, Python, MATLAB, stata, shell scripting, LATEX

Teaching

Guest Lecturer

2013 Essentials of Probability and Statistical Inference I-II, JHSPH

Teaching Assistant

2014 Statistical Methods in Public Health I-II (with lab component in term II), JHSPH

2012-2014 Essentials of Probability and Statistical Inference I-IV (with lab component), JHSPH

2012 Statistical Reasoning I and II, JHSPH Summer Institute of Epidemiology and Biostatistics

## Awards and Scholarships

2014 **The June B. Culley Award:** Honors outstanding achievement by a Biostatistics student on his or her schoolwide oral examination paper

2012-present Doctoral Training Grant in Environmental Biostatistics: Provides funding for at least three years

2006-2010 Undergraduate Awards: Phi Beta Kappa; John Dows Mairs Prize (University of Rochester Economics Dept); Omicron Delta Epsilon International Honor Society for Economics; Theta Chi Long, Walter, Ott Award; Theta Chi Valentine H. Zahn Fund

### Presentations

- 2014 "Fast, Exact Bootstrap Principal Component Analysis for p>1 Million." (4th Annual Hopkins Imaging Conference) Baltimore, MD, Invited Short Talk & Poster.
- 2014 "Fast Exact Bootstrap Principal Component Analysis for \$p>1\$ million: Leveraging Low-Dimensional Structure Across High-Dimensional Bootstrap Samples." JSM, Boston, MA. Contributed Speed Session & Poster.
- 2014 "People Can't See Statistical Significance: A Massive Randomized Trial on the Visual Perception of Relationships." ENAR Spring Meeting, Baltimore, MD, Contributed Talk.

## Other Leadership Roles

2013-2014 JHU Biostatistics Vegetarian Chili Champion

2012-2013 Co-organizer of JHU Biostatistics Computing Club, with Prasad Patil (speaker schedule link)

Last updated: January 23, 2015