August 25, 2013

Alexander Fredric Braunstein

1658 8th Ave.
San Francisco, CA 94122
407-462-9098

thestatistician@gmail.com
US Citizenship/Current US Passport

Education

The Wharton School, University of Pennsylvania - Ph. D. Statistics — August 2009
MA Statistics - Thesis: American Option Approximations — May 2008
GPA 4.0, Relevant Courses: Linear Models, Statistical Methods and Computation, Stochastic Processes, Stochastic Calculus and Financial Applications, Financial Timeseries and Computational Statistics, Inductive Statistical Methods

Swarthmore College - BA Applied Mathematics (GPA 3.8) — May 2005
Relevant Courses: Financial Economics, Advanced Macroeconomics, Econometrics, Operations Research, Real Analysis (2 semesters)

Work Experience

Head of Evaluation Metrics, Maps, iTunes and App Store, Apple Inc. — Mar 2013 - Present
Manage team of 10+ statisticians and analysts to define, track, leverage and report qualitative and quantitative metrics summarizing the quality of algorithmic results across Maps, App Store, and iTunes.

Senior Statistician, Apple Inc. - Search Quality Lead iTunes — March 2012 - Feb 2013
Define qualitative and quantitative metrics for all iTunes and App Store search algorithms. Improved synonym and spell correction model (8% traffic impacted).

Software Engineer, Chomp Inc. - Research Team, Analytics, Search Quality Lead — May 2011 - March 2012
Ranking Improvements, Synonyms, Monthly Board reports, User Analytics, Monthly App Search Analytics Reports, Search Quality Tracking, Competitor analysis, Cohort analysis.

Senior Search Quality Statistician, Google Inc. - Human Eval Lead for Google+ — April 2011
Designed and implemented Google's first personalized human evaluation system.

Search Quality Statistician, Google Inc. - Human Eval Lead for Google+
Significant experience with Freshness, Realtime and Entity eval. Proposed sampling methodology which decreases necessary ratings by 8% while maintaining power. Prototyped new rating methodology which decreases item variance by >10%. — August 2009 - April 2011

Software Engineering Statistician, Google Inc. - Improving search quality via query stratification. — May 2008 - August 2008

Quant Research Intern, Susquehanna International Group - Intern on Statistical Options Trading (SOT) Desk. Work included volatility forecasting, American Option Valuation Techniques, and several other projects. A detailed and itemized explanation of my projects can be provided upon request. — May 2007 - August 2007

Consultant, Domino's Pizza - Developing and Analyzing Test Market Methodology — Aug 2007 - Dec 2007

Consultant, Square Agency - Algorithm Development for efficiently matching items to quickly and accurately recover the top group from user preferences — Sep 2007 - Oct 2007

Graduate Associate Harrison College House - Overseeing dorm life and holding/organizing events for 35 - 300 students. — Sep 2005 - May 2009

Olive Garden - Serving mediocre Italian cuisine with a smile — Jan 2002 - March 2002

Awards

OC Award, Realtime Search - Google	2011
Murray Award for Graduate Student Teaching	Fall 2007
Engineers' Week Student Paper Competition Winner	March 2005
Debate Nationals - 5th Place (two times)	May 2001, May 2002
Florida State Champion (two times) - Student Congress, Current Issues Debate	March 2000, March 2001

Skills

Python, R, C++ (rusty), javascript (rusty)

Publications

1) Jensen, S. T. , Park, J., Braunstein, A., and McAuliffe, J. Bayesian Hierarchical Modeling of the HIV Evolutionary Response to Therapy. *Journal of the American Statistical Association* (to appear).
2) Berger, J., Bradlow, E., Braunstein, A., and Zhang, Y. From Karen to Katie: Using Baby Names to Study Cultural Evolution. *Psychological Science*, October 2012; vol. 23, 10: pp. 1067-1073., first published on September 13, 2012
3) McShane, B., Braunstein, A., Piette, J., and Jensen, T. A Bayesian Variable Selection Approach with Application to Major League Baseball Hitting Data. *Journal of Quantitative Analysis in Sports* Vol. 6: Issue 4, 2011.
4) Braunstein, A., Granka, L., and Staddon, J. Indirect Content Privacy Surveys: Measuring Privacy Without Asking About It. *SOUPS* 2011.
5) Nygaard, S., Braunstein, A., et al. Long and short term selective pressures on malaria parasite genomes. *PLoS Genetics 6(9).*
6) Piette, J., Braunstein, A., McShane, B., and Jensen, T. A Point-Mass Mixture Random Effects Model for Pitching Metrics. *Journal of Quantitative Analysis in Sports.* Vol. 6: Issue 3, 2010.
7) Braunstein, A. Consistency and Pythagoras. *Journal of Quantitative Analysis in Sports.* Vol. 6: Issue 1, 2010.
8) Braunstein, A., Jensen, S.T., McAuliffe, J.M. and Wei, Z., A spatially varying two-sample recombinant coalescent, with applications to HIV escape response. *Advances in Neural Information Processing Systems (NIPS)*, Volume 20, 2009.

Working Papers

1) Braunstein, A. and Wang, S. Confidence intervals for pulsed mass extinctions when recovery potential is non-uniform.

Invited Talks

1) Evaluating Algorithms at Apple. Duke University, March 21, 2013.
2) Searching by Function: App Search v. Web Search. Wharton Global Alumni Forum, June 25, 2011.

Teaching experience

Professor - Intro to Statistics	Summer 2009
Teaching Assistant - Stochastic Processes	Spring 2009
Teaching Assistant - Intermediate Statistics	Spring 2008
Teaching Assistant - Math Modeling and its Applications to Finance	Spring 2008
Teaching Assistant - Financial Timeseries	Fall 2007, Fall 2008
Teaching Assistant - Introductory Business Statistics I/II	Fall 2005, Spring 2006, Spring 2007
Teaching Assistant - Intro to Statistics	Fall 2006