

Alexander W Blocker

Education

Harvard University

- *PhD in Statistics (in progress)*
 - September 2009 to present

- 4.00 Cumulative GPA

Boston University

- *MA in Economics*
 - September 2006 to May 2008
 - *BA in Mathematics & Economics, Summa Cum Laude*
 - September 2004 to May 2008
 - 3.97 Cumulative GPA with 138 credits completed (combined for dual-degree program)
4.00 GPA in mathematics & statistics coursework
 - Top marks in PhD statistics & econometrics, Masters-level stochastic processes, and Masters-level real analysis sequence
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Publications

- Blocker, A.W., Protopapas, P., & Alcock, C.R. (2009). A Bayesian Approach to the Analysis of Time Symmetry in Light Curves: Reconsidering Scorpius X-1 Occultations. *The Astrophysical Journal*, 701, 1742-1752.
 - Blocker, A.W., Kotlikoff, L.J., & Ross, S.A. (2008). The True Cost of Social Security. *NBER Working Paper* 14427.
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Research Experience

May 2008 – Present

Harvard University Statistics Department

Cambridge, MA

Research Assistant

- Collaborating with astrophysicists from Harvard-Smithsonian Center for Astrophysics to build Bayesian methods for the analysis of low-count x-ray data
- Working with Harvard Time Series Center to develop new methods for anomaly detection & analysis in time series
- Developing Bayesian approaches to network tomography with Edo Airoldi

Sept. 2007 – June 2009

Boston University Economics Department

Boston, MA

Research Assistant

- Responsible for statistical aspects of research on Social Security valuation with Laurence Kotlikoff and Stephen Ross, including time series modeling, hierarchical modeling, and advanced simulation methods
 - Assisted in development of valuation methods for Social Security liabilities
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Teaching Experience

Sept. 2008 – Present

Harvard University Statistics Department

Cambridge, MA

Head Teaching Fellow for Statistics 104 (Spring 2009)

- Responsible for sectioning and other administrative matters for class of 167 students with a team of 8 teaching fellows
- Developed section notes for other teaching assistants to guide weekly sections
- Taught discussion section (17 students total) to reinforce lecture material

Teaching Assistant for Statistics 104 (Fall 2008)

- Taught 2 discussion sections (34 students total) per week to reinforce lecture material
- Held office hours to address individual questions and concerns
- Responsible for grading of homeworks and exams from assigned students

Nov. 2007 – Present

Self-Employed

Boston, MA

Tutor

- Tutored individual students and groups in Masters and PhD-level statistics and econometrics
 - Assisted students in preparing for comprehensive exams for Masters degree in economics
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Professional Experience

June 2008 – June 2009

Weiss Asset Management

Boston, MA

Intern

- Developed and implemented complex statistical analyses to further fund objectives
- Built complex datasets using a range of data management tools

June 2007 – Jan. 2008

UBS Investment Bank

Stamford, CT

Consultant (January 2008)

- Developed & revised complex statistical models to improve forecasts and gain insight into the underlying phenomena
- Trained quantitative strategists on use of R for validation & updating of statistical models, including collaborative procedure development

Summer Analyst, Fixed Income Research (June – August 2007)

- Conducted sophisticated statistical analyses for US Rates & Government Bonds research desk, including VAR & VECM-based modeling, high-frequency time-series analysis, regime-switching methods, and Kalman filtering
- Gained experience performing quantitative analysis in a high-pressure environment
- Presented methodology & results to upper management

May 2004 – March 2007

Matté & Company Management Consulting

Greenwich, CT

Senior Research & IT Advisor (formerly Senior Research & IT Coordinator)

- Sole author and researcher on statistical studies for Fortune 500 scale corporations
- Conducted advanced quantitative analysis & modeling for multi-million dollar compensation packages
- Performed, supervised, and presented quantitative and qualitative research on multinational corporations' performance, operational structures, strategies, and industry trends
- Deployed and administrated full Microsoft Small Business Server 2003 system, improving collaboration, communication, and data security
- Trained interns in research methods

July – September 2006

Boston University School of Management

Boston, MA

Research Assistant

- Built dataset on scientific publications for research on stem cell policy
- Located and parsed historical data on private companies for study of venture capital overinvestment

Skills

- Experience developing scientific applications in C/C++, Python, & R, including Bayesian simulation algorithms for astrophysical data, parallel optimization methods for time-series analysis, and event detection algorithms
- Advanced proficiency in C/C++, Python, R, Matlab, Mathematica, & Stata
 - Implemented EM algorithm for estimation of linear dynamical systems with known inputs in Matlab
 - Experience with hierarchical modeling and simulation in R
- Thorough knowledge of and expertise in Linux; Windows (desktop and server); OpenOffice; Microsoft Word, Excel, PowerPoint, & Access; Adobe Acrobat; & Mac OS X
- Experience with SQL and Java

Achievements & Awards

- Pierce Fellowship Recipient, Harvard University Graduate School of Arts & Sciences, September 2009
 - Phi Beta Kappa Initiate, May 2008
 - Boston University College Prize for Excellence in Economics, May 2008
 - Phi Beta Kappa Award recipient, December 2006
 - BU Distinguished Sophomore in College of Arts & Sciences
 - BU University Scholarship recipient (merit-based)
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Organizations

- Phi Beta Kappa
- American Statistical Association
- Institute for Mathematical Statistics
- International Association of Financial Engineers
- Sigma Alpha Lambda
- National Society of Collegiate Scholars

Background

- US Citizen (natural born)
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References Available Upon Request