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Alexander W Blocker

Education

- ***MA in Economics***
  - Boston University: September 2006 to May 2008
- ***BA in Mathematics & Economics, Summa Cum Laude***
  - Boston University: 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

Teaching Experience

Sept. 2008 – Present **Harvard University Statistics Department** **Cambridge, MA**

Head TF for Statistics 104 (Spring 2009)

- Responsible for sectioning and other administrative matters for class of 167 students
- 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 – May 2008 **Self-Employed** **Boston, MA**

Tutor

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

Professional Experience

May 2008 – Present **Harvard University Statistics Department** **Cambridge, MA**

Researcher

- Working 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.

Sept. 2007 – Present **Boston University Economics Department** **Boston, MA**

Research Assistant

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

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 R, Matlab, Mathematica, and 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, Open Office, Microsoft Word, Excel, PowerPoint, & Access, Windows XP, 2000, and Server 2003, Adobe Acrobat, and Mac OS X
- Experience with SQL and Java

Achievements & Awards

- Pierce Fellowship Recipient, Harvard University GSAS, Fall 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)

Organizations

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

References Available Upon Request