Barton Baker

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Education

American University, *Washington, DC*, 2008–Present.
Ph.D. Candidate, Economics; Finished coursework; Expected graduation date: Spring 2013
Honors: *Recipient of Merit Graduate Fellowship 2008-2012*; *Frank Tamagna Award for Oustanding Achievement in Monetary Economics*
Fields: International Economics and Monetary Economics
GPA: *3.85/4.0*

University of Massachusetts, *Amherst, MA*, 2004–2008.
B.A., Economics; Minors in Mathematics and Chinese; International Relations Certificate
Honors: *Graduated Summa Cum Laude GPA: 3.91/4.0*; *Dean's List 2004–2008*; *International Scholar Award*; *Phi Betta Kappa*; *Stanley Z. Koplik Certificate of Mastery*; *Chancellor's Talent Award*
Member of Commonwealth Honors College

Research Network Macroeconomics and Macroeconomic Policies, *Berlin-Pichelsee, Germany*, July, 2005.

Shaanxi Normal University, *Xi'an*, China, August, 2006–January, 2007.
Completed four intermediate/advanced Chinese language courses.

Experience

Senior Programmer, *Mathematica Policy Research*, Washington, DC, June 2011–Present.
- Introduced company-wide Git source code management to Research Programming Division, expediting code review and formalized version control
- Developed complex SAS programs to import and analyze Medicare, Medicaid, and Commercial health care claims (>10 GB) across multiple years' databases to produce hospital level outcomes
- Entrusted with automated system utilizing Perl to automate the estimation of hospital level health outcome point estimates and bootstrapped confidence intervals achieved by customized parallel processing and non-linear modelling
- Independently developed and taught R software training courses to increase R programming support at company
- Provided crucial Linux support to programming team, writing several bash and Python scripts to aid transition from MS Windows to Linux environment, in addition to monitoring Linux system performance
- Reviewed SQL, R, MATLAB, and Stata code of incoming job candidates

Research Team, *Financial Crisis Inquiry Commission*, Washington, DC, September–December 2010.
- Member of 6 person team responsible for intake and analysis of all data recieved by FCIC
- Learned Stata on the job in a few weeks and was able to to produce report quality figures and statistics from large datasets (> 10GB) used for the Financial Criris Inquiry Report during the four position
- Produced summary statistics and graphs from large data sets for official FCIC report using Stata
- Traced investment paths of specific mortgages and mortgage backed securities (MBS) through different data sets
- Provided general data support to the entire FCIC staff

Mathematical Analyst, *United States Census Bureau*, Suitland, MD, Summers 2009, 2010.
- In 2009, made extensive use of internal American Community Survey (ACS) data to assess the quality of new health insurance coverage data
- In 2010, wrote SAS macros for use by the Poverty Branch of the Housing and Household Economic Statistcs Division in order to run descriptive statistic queries on Current Population Survey (CPS) data going back to 1963
- In both years, worked with internal ACS and CPS data to produce statistics for the Income, Poverty and Health Insurance Coverage Reports (2009, 2010)

Software developer, *Google Summer of Code*, Washington, DC, Summer 2011.
- Developed structural vector auto-regression (SVAR) class for Python based statistical package (statsmodels)
- Also contributed code to test for unit-root and different methods of calculating VAR impulse response function confident intervals, including bootstrapping and Monte Carlo methods
- Funded by Google through the Google Summer of Code project

Teaching Assistant, *American University*, Washingon, DC, August 2008–May 2012.
- Facilitated discussion and review sessions for both undergraduate and graduate level Economics classes
- Graded problem sets and exams
- Held weekly office hours

Economics Graduate Student Union President, *American University*, Washington, DC, August 2009–Present.

- Attended faculty meetings and contributed ideas to improve PhD program
- Developed and managed a budget
- Engaged in College of Art and Science-wide decision making

Skills

Advanced language skills : Python, R, Bash, SAS, Stata, SQL, MATLAB, LaTeX

Competent language skills : Perl, C, C++, HTML, Mathematica, Eviews

Basic language skills : Java, HTML5

Advanced software skills : Git, Vim, MS Office, LibreOffice, Firefox, IE, Chrome

Advanced OS experience : Linux (Ubuntu and Red Hat/Fedora distros), and MS Windows XP/Vista/7

Competent OS experience : UNIX

Languages

English	**Native**
Mandarin Chinese	**Proficient**

Interests

Performs jazz trumpet with small groups in local scene.

Enjoys traveling, reading, and biking.

References available upon request.