

Houtan BASTANI

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EDUCATION

MSc Economics (<i>with Merit</i>) London School of Economics Modules in: Microeconomics, Macroeconomics, Econometrics, International Economics	2008-09
B.S. Economics, Computer Science (<i>Summa Cum Laude</i>) College of William & Mary College education financed through scholarships, grants, loans and work. Modules in: Econometrics, Time-Series Econometrics, Topics in Math Econ, Micro and Macro Theory, Databases, Systems Programming, among many others.	2000-03
Candidate for B.S.E. Computer Science Engineering (<i>transferred</i>) University of Pennsylvania	1998-00

FELLOWSHIPS, HONORS AND AWARDS

US Fulbright Research Fellow, Italy	2003-04
Elected member of Phi Beta Kappa honor society	2002
Frances L. and Edwin K. Cummings Scholar	2002
NSF REU Program	2001, 2002
Dean's List	1999-03

WORK EXPERIENCE

Researcher Software Engineer, Dynare, CEPREMAP, École Normale Supérieure <ul style="list-style-type: none">Focused on development of Dynare, primarily in C++, Matlab, and JuliaProgrammed<ul style="list-style-type: none">OLS, FGLS, Gibbs Sampling for SUR models, VAR forecasts, ...Interpreter for Dynare's macro processing languageDynare's Reporting functionalityDynare's test suite, run nightly upon commitIntegrated Sims, Waggoner and Zha MS-SBVAR codeJSON and Julia output of preprocessoramong others...Responsible for distribution on macOS: create installation packages and snapshots; created and maintain installation scripts on HomebrewDebian server administration (manage users, email addresses, bacula backups, etc.)Webmaster http://www.dynare.org and http://www.cepremap.fr	since 2009
Consultant, Organisation for Economic Co-operation and Development (OECD) <ul style="list-style-type: none">Added Gandhi, Navarro and Rivers (2017) module to MultiProd codebaseFixed bug in Stata GtoolsGave class on Git	2018
Consultant, Copywrighte Design <ul style="list-style-type: none">Created interactive in-store display using Python and Raspberry Pi	2018
Consultant, CQER, Federal Reserve Bank of Atlanta <ul style="list-style-type: none">Worked for Dan Waggoner and Tao Zha, creating an interface for use with their Regime-Switching DSGE models.	2011

Research Assistant, Federal Reserve Board

2006-08

- Worked in the modeling group of the Trade and Financial Studies section of the Division of International Finance (IF).
- Primarily focused on research improving the numerical methods for estimating parameters of Dynamic General Equilibrium models (see publications below). This involved extensive programming in C, Matlab and Fortran.
- Developed simple forecast average models in EViews, producing forecasts of foreign real GDP growth and foreign inflation, to be used within IF.
- Responsible for generating FRB/Global alternative simulations to be included in the Greenbook every FOMC cycle.
- Worked closely with two economists in preparation for special presentations to the Board members.
- Conducted literature reviews

Computer Applications Programmer, Federal Reserve Board

2005-06

- Programmed various projects including the Check 21 survey for banks and Web Census. Both projects involved programming in VB .Net and database design.

Research Assistant to Dr. Nikos Chrisochoides, College of William & Mary

2001-03

- Ported parallel communication software from Linux to Windows so that multiple platforms could be used in parallel within a computing cluster. Found inconsistencies between the Microsoft implementation of the Message Passing Interface for parallel communication and the industry standard.

Teaching Assistant for Introductory Italian

2001

- Taught Italian to eleven undergraduate students two times a week, fostering conversation and assessing participation.

COMPUTER SKILLS

<i>Programming Languages:</i>	C, C++, Fortran, Matlab, Julia, EViews, Stata, Java, Python, VB .NET
<i>Operating Systems:</i>	macOS, GNU/Linux, Windows
<i>Other:</i>	Flex, Bison, PLY, Emacs, SQL, Git, Autotools, Travis CI, web development, sys admin
<i>Open Source:</i>	Have contributed to Homebrew and Homebrew Science

PUBLICATIONS

“Dynare: Reference Manual, Version 4”, with Stéphane Adjemian, Michel Juillard, Ferhat Mihoubi, George Perendia, Marco Ratto and Sébastien Villemot, Dynare Working Papers, no. 1, CEPREMAP, April 2011.

“On the Application of Automatic Differentiation to the Likelihood Function for Dynamic General Equilibrium Models”, with Luca Guerrieri. Advances in Automatic Differentiation. Eds. Bischof, C.H., et. al. Berlin: Springer-Verlag, 2008. 303-314.

LANGUAGE SKILLS

English (native); Farsi, Italian, French (advanced); Portuguese, Spanish (novice)

INTERESTS

Hobbies: jewelry making (Instagram: @hbcreated)
Sports: badminton, yoga, squash, soccer

REFERENCES AVAILABLE UPON REQUEST