# Ben Southgate

### Contact

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Blog := bsou.io

### Education

#### Carleton College

2009-2013

- B.A., majored in economics (magna cum laude)
- Received departmental award and distinction for senior thesis in economics
- Coursework: Data Mining, Data Structures, Econometrics, Linear Algebra, Multi-variable Calculus

#### George Washington University

2015-present

- M.S., Statistics
- Coursework: Mathematical Statistics, Real Analysis, Analysis of Algorithms, Non-Parametric Models

# Professional Experience

#### Software Engineer

2015-Present

CrossLead - Washington, D.C.

- Implemented graph theoretic algorithms for social network analysis
- Developed TypeScript based libraries to extend mongodb with graph database features
- Developed AngularJS components for SPA
- Helped set up autoscaling infrastructure on AWS
- Worked with fully remote, international team

#### Research Assistant

2013-2015

The Urban Institute - Washington, DC

- Used Stata and SAS for survival analysis, group decomposition, (non) linear regression, and graphics generation
- Used Python for microsimulation, data cleaning and structure manipulation, and task automation, JavaScript for interactive data visualization development

#### Research Assistant

2012

University of Texas, Pop. Research Center - Austin, TX

- Conducted primary research utilizing U.T. Austin freshman applicant data, resulting in a working paper
- Used Stata for various regression and descriptive analyses, as well as graphics generation

# Academic Experience

### Teaching Assistant

2012-2013

Carleton College - Northfield, MN

- Junior / Senior level Macroeconomic Theory Course (ECON 331), which included Growth Modeling, Dynamic Optimization, Interest Rate Targeting, and RBC Analysis
- Ran review sessions, developed graphical and mathematical review material in LATEX, and conducted individual tutoring sessions

## Selected Publications

#### Urban Institute

- Richard W. Johnson, Benjamin G. Southgate. "How Will State and County Government Employees Fare under Kentucky's New Cash Balance Pension Plan?", April 30, 2014
- Richard W. Johnson, Barbara Butrica, Owen Haaga, Benjamin G. Southgate. "When Do State and Local Pension Plans Encourage Workers to Retire?", April 30, 2014

# Programming Experience

**TypeScript** — 1 year (graph algorithms)

**JavaScript** — 3 years (BabelJS / NodeJS / D3 / Angular)

**Python** — 4 years (web scraping / Pandas / DTW)

LATEX — 4 years (Sweave / Stata weaving)

Unix Shell — 3 years (make / AWK / sed)

**R** — 2 years (regression analysis / data mining)

Java — 2 years (data mining)

**SAS** — 2 years (extensive macro programming)