DEREK L. HANSEN

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EDUCATION

University of Oklahoma — Norman, OK

Bachelor of Science in Mathematics & Bachelor of Arts in Economics — Aug. 2012 - May 2016
Summa Cum Laude; Overall GPA: 3.90/4.00

George Washington University — Washington, DC

Graduate Coursework: Financial Mathematics, Measure Theory — Aug. 2016 - Dec. 2017

Universidad Católica de Uruguay — Montevideo, Uruguay

Study Abroad — July 2014 - Dec. 2014

RESEARCH EXPERIENCE

Federal Reserve Board of Governors, Division of Research & Statistics — Washington, DC
Senior Research Assistant, Risk Analysis Section — July 2016 - Present

- Coauthored paper: *A Randomized Missing Data Approach to Robust Filtering with Applications to Economics and Finance* (with Dobrislav Dobrev and Paweł Szerszeń)
- Developed an R package: RSMC2 (https://github.com/dereklh24/RSMC2)
- Streamlined policy production code by adding version control (Git) and automated data checking
- Research interests: SMC^2, financial econometrics, Bayesian inference

Department of Administration and Finance, University of Oklahoma — Norman, OK
Research Assistant — Jan. 2016 - May 2016

- Wrote program in Python to monitor free-response answers on survey kiosks for suspicious content
- Developed webpage with R (shiny) to visualize how financial aid was distributed in student body

Society for Innovative Education, Honors College, University of Oklahoma — Norman, OK
Research Fellow — Sept. 2015 - April 2016

- Monthly panel that discussed methods to improve current education system, particularly in Oklahoma
- Gave presentation: *Scaffolding Computational Thinking into Mathematics*

TEACHING EXPERIENCE

Athletic Department, University of Oklahoma — Norman, OK
Academic Tutor — Aug. 2015 - Dec. 2015

- Courses tutored include calculus, differential equations, linear algebra, and discrete mathematics

Economics Department, University of Oklahoma — Norman, OK
Teaching Assistant — Aug. 2013 - Dec. 2013

- Assisted Professor Aparna Mitra in her Intermediate Microeconomics class

SKILLS

Programming Languages:

R (`tidyverse, Rmpi, Rcpp, data.table, ggplot2, shiny`), Python (`requests`), C++, C, Matlab

Computing Environments:

Linux (Ubuntu, Arch Linux), SLURM, Git

HONORS & AWARDS

Phi Beta Kappa   May 2016

Alpha of Oklahoma Chapter

Samuel Watson Reaves Award - Finalist   May 2016

Mathematics Department, University of Oklahoma

 · Awarded to outstanding senior mathematics majors as selected by faculty

Presidential Honor Roll   Jan. 2013 - May 2016

College of Arts and Sciences, University of Oklahoma

 · Earned 6 times by achieving a 4.0 GPA throughout the semester in at least 12 graded credit hours

National Merit Finalist   Fall 2011