Justin Doty

Citizenship: United States of America

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EDUCATION

The University of Iowa, Iowa City, IA 52242 — 2016 - 2022
Ph.D. in Economics — July 2022
Dissertation: *Identification and Estimation of Production Functions with Unobserved Heterogeneity*
Advisor: *Suyong Song*
M.A. in Economics — December 2017
California State University, Fullerton, Fullerton, CA 92834 — 2011 - 2016
B.A. in Economics, minor in Mathematics — May 2016

EXPERIENCE

U.S. Census Bureau — Washington D.C, 20233 — 2022 - present
Job Title: Research Economist

- Conducted research in privacy preserving statistical methods for causal inference and data publication

- Implemented mathematically-provable privacy methods to minimize the tradeoff between respondent privacy and data accuracy for statistical products

- Collaborated with internal stakeholders on how to modernize statistical disclosure prevention methods with product-specific challenges

- Implemented and tested privacy preserving algorithms in Python and R on large datasets

The University of Iowa — Iowa City, IA 52242 — 2016 - 2022
Job Title: Graduate Student

- Developed economic and statistical models for estimating firm productivity using financial and census data

- Developed econometric theory for identification and estimation of heterogeneous production technologies

- Developed nonparametric identification strategies for conditional quantile models with unobserved heterogeneity

- Proposed and developed identification and estimation methodologies for measurement error problems in census data

- Proposed methodology for correcting endogeneity and measurement error problems in survey data using nonparametric instrumental variable techniques

- Applied econometric techniques to nonlinear set-identified models with unobserved heterogeneity using a latent variable simulation algorithm

- Performed Monte Carlo simulation procedures based on microeconomic and firm decision theory in order to test robustness of proposed econometric estimators

- Implemented high dimensional econometric estimation using parallel computing architecture in a high performance computing (HPC) cluster

- Presented research at the following conferences: *European Winter Meeting of the Econometric Society, Southern Economic Association, Joint Statistical Meetings, Midwest Econometrics Group*

- Evaluated and refereed a research paper in the journal *Empirical Economics*

The University of Iowa, Iowa City, IA 52242   2016 - 2022
Job Title: Graduate Teaching Assistant

- Assisted professors in teaching the following courses: *Ph.D. Econometrics, Statistics for Strategy, Principles of Microeconomics, Principles of Macroeconomics, Global Economics*
- Assisted professors in grading the following courses: *Ph.D. Econometrics, Ph.D. Statistics for Economics, Ph.D. Applied Econometrics, Economic and Business Forecasting, Managerial Economics*
- Assisted economics graduate students in their econometric theory questions and assignments
- Provided supplemental instruction in econometric theory to economics graduate students
- Assisted both undergraduate and graduate students in learning statistical programming languages
- Held office hours and review sessions for students outside of discussion sessions

Working Papers

"Slowly Scaling Per-Record Differential Privacy" (*with Brian Finley, Anthony Caruso, Ashwin Machanavajjhala, Mikaela Meyer, David Pujol, William Sexton, and Zachary Terner*)
"A Dynamic Framework for Identification and Estimation of Nonseparable Production Functions"
"Estimating Quantile Production Functions: A Control Function Approach" (*with Suyong Song*)

Works in Progress

"Identification of Gross-Output Production Functions with Mismeasured Inputs"
"Estimating Industry Competitor Network Effects on Firm-Level Productivity"

Awards and Fellowships

Ballard and Seashore Dissertation Fellowship, University of Iowa	2021
Summer Fellowship, University of Iowa	2020
Post-Comprehensive Research Fellowship, University of Iowa	2020
GSS/Graduate College Presentation Travel Funds, University of Iowa	2019

Computation and Software

Experienced: R
Intermediate: Python, Matlab

References

Suyong Song (Advisor)
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Seongjoo Min
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