Brett C. Mullins

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CONTACT INFORMATION	222 Merchandise Mart Plaza, Suite 875 Chicago, IL, 60654
RESEARCH INTERESTS	Learning Theory, Causal Modeling, Formal Epistemology, Explainable/Interpretable AI, Public Policy and Income Mobility

EDUCATION

Miami University, Oxford, OH
- M.S., Mathematics,   *Expected:* Spring 2019
  - Comprehensive Exams: Statistical Theory
  - Thesis: *Classifying the Interpretability of Machine Learning Models via Topological Complexity*
  - Advisor: Paul Larson, Department of Mathematics

Carnegie Mellon University, Pittsburgh, PA
- Summer School in Logic and Formal Epistemology   June 2015

Georgia State University, Atlanta, GA
- B.S., Economics,   May 2014
- B.A., Philosophy,   May 2014
  - *Summa Cum Laude*
  - Thesis: *Against Indifference: Popper's Assumption of Distribution Preference*
  - Advisor: Yongsheng Xu, Department of Economics

TEACHING

Instructor of Record (Miami University)
- *Finite Mathematical Models*   Spring 2016
- *Precalculus*   Fall 2015, Fall 2016

Teaching Assistant (Miami University)
- *Great Theorems of Mathematics*   Spring 2016

PROFESSIONAL EXPERIENCE

Senior Data Scientist   Summer 2016, February 2017 to Present
Data, Discovery, and Decision Science, Allstate, Chicago, IL
Plan, design, manage, and implement improvements to the underwriting and claims processes for auto by utilizing external and unstructured data. Support projects with predictive modeling including image recognition and object detection for photo models, real-time production implementation, and randomized experiments.

Research Affiliate   January 2014 to Present
Fiscal Research Center, Georgia State University, Atlanta, GA
Member of a group investigating earnings mobility among low income individuals in Georgia. We build econometric models and develop new methods of mobility measurement using government administrative data from the Department of Human Services (DHS) and the Department of Labor (DOL).

Research Assistant   May 2013 to August 2013
Department of Economics, Georgia State University, Atlanta, GA
Advisor: Jim Marton
Estimated disenrollment likelihoods and tested for interaction effects given various demographic and health characteristics within Georgia's PeachCare for Kids program.

PUBLICATIONS	

PUBLICATIONS

1. "Gauthier, Equilibrium, and the Emergence of Morality." *Dialogue*, vol. 55 (4), 2016.

2. "Long Run Earnings Mobility among Low Income Individuals" with Mark Rider, David Sjoquist, and Sally Wallace. *Journal of Economics and Public Finance*. vol. 2, 154-170, 2016.

3. "Trends in TANF and SNAP Participation in Georgia" with Mark Rider, David Sjoquist, and Sally Wallace. *Andrew Young School of Policy Studies*, Fiscal Research Center Report, 2015.

4. "Recollection and Second Order Skepticism." *Marist Undergraduate Philosophy Journal*, 2015.

SELECTED PRESENTATIONS

"Infinite Cycles and the Graphical Approach to Epistemic Justification."
Society for Exact Philosophy, May 2019

"Measuring the Impact of Social Programs on Income Mobility Using Big Data."
Next Generation of Public Finance Conference, May 2016

"Non-Arbitrary Inference: An Objection to Strong Bayesianism."
Indiana Philosophical Association Fall Meeting, November 2015

"Mathematics Preparation & Intermediate Economics."
Miami University Graduate Research Forum, October 2015

"Total Earnings Mobility among Public Assistance Recipients in Georgia."
Missouri Valley Economic Association Annual Meeting, October 2015

"On Probability Assessment in the Original Position"
Formal Ethics 2015, July 2015
The Pittsburgh Area Philosophy Colloquium, September 2014

"Helping Hand or Anchor: The Effect of Public Assistance on Income Mobility among the Poor."
National Tax Association's Annual Conference on Taxation, November 2014

ACADEMIC HONORS

Top Three Presentation Award, MU Graduate Forum — December 2015
Research Excellence in Economics Program (Re^2P) — Sept. 2013 to Dec. 2014
Graduate Student Paper Award, Indiana Philosophical Association — October 2014
Phi Sigma Tau Scholar Travel Stipend — March 2014, September 2014
George W. Beiswanger Award: Outstanding Student in Philosophy,
Department of Philosophy, Georgia State University — February 2014
Socrates Award: Outstanding Student in Philosophy,
Department of History & Philosophy, University of North Georgia — April 2012

TOOLS & LANGUAGES

R, Python, LaTeX, Groovy, SAS, reveal.js, Elastic Stack, Keras, Tensorflow, Agile/Scrum, German (*Elementary*)

PROFESSIONAL MEMBERSHIPS

American Mathematical Society
American Philosophical Association
Phi Sigma Tau (Honors Society in Philosophy)
Missouri Valley Economic Association