David Puelz

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Experience

The University of Austin — 2024 - present
Center for Science, Technology, Engineering, and Mathematics
Assistant Professor of Statistics and Data Science

The University of Texas at Austin — 2021 - present
School of Civic Leadership and McCombs School of Business
Assistant Professor of Instruction and Director of Policy Research Lab

The University of Chicago — 2018 - 2021
Booth School of Business
Principal Researcher
Interests: *causal inference, randomizations, networks, machine learning, applications of statistics*

The University of Texas at Austin — 2013 - 2018
McCombs School of Business
Graduate Research Assistant

Education

The University of Texas at Austin — 2018
McCombs School of Business
Ph.D., Statistics
Topics: *Bayesian modeling, causal inference, applications of statistics*

The University of Texas at Austin — 2015
McCombs School of Business
M.S., Statistics

Wesleyan University — 2011
Honors in Mathematics, Phi Beta Kappa
B.A., Mathematics and Physics

Publications

A Bayesian Classification Trees Approach to Treatment Effect Variation with Noncompliance
Jared Fisher, David Puelz, and Sameer Deshpande
In preparation (2023)

Financial Literacy and Financial Well-being
David Puelz, Myeongrok Doh, and Robert Puelz
In preparation (2023)

Posterior Summarization for Time Varying Dynamic Bayesian Networks
Si Kai Lee, Sam Wang, David Puelz, and Mladen Kolar
In preparation (2023)

Fear the Reaper: Estimating the Effect of Drone Strikes on Terrorist Violence using Bayesian Causal Forests
Taylor Cox and David Puelz
In preparation (2023)

Fisher meets BART: Integrating Causal Machine Learning and Randomization Tests
David Puelz, Jungho Lee, and Panos Toulis
In preparation (2023)

The Disutility of Compartmental Model Forecasts During the COVID-19 Pandemic
Tarini Sudhakar, Ashna Bhansali, John Walkington, and David Puelz
Frontiers in Epidemiology (2024)
[link to journal]

BicliqueRT: A Software Package for Causal Testing and Experimental Design Under Interference
Shunzhuang Huang, Panos Toulis, and David Puelz
In preparation (2023)
[link to github]

A Graph-Theoretic Approach to Randomization Tests of Causal Effects Under General Interference
David Puelz, Panos Toulis, Guillaume Basse, and Avi Feller
Journal of the Royal Statistical Society, Series B (2022)
[link to journal]

Financial Literacy and Perceived Economic Outcomes
David Puelz and Robert Puelz
Statistics and Public Policy (2022)
[link to journal]

A Symmetric Prior for Multinomial Probit Models
Lane Burgette, David Puelz, and P. Richard Hahn
Bayesian Analysis 16 (2021). No 3
[link to journal]

Monotonic Effects of Characteristics on Returns
Jared Fisher, David Puelz, and Carlos Carvalho
Annals of Applied Statistics (2020)
[link to journal]

Portfolio Selection for Individual Passive Investing
David Puelz, P. Richard Hahn, and Carlos Carvalho
Applied Stochastic Models in Business and Industry (2019)
[link to journal]

Regularization and Confounding in Linear Regression for Treatment Effect Estimation
P. Richard Hahn, Carlos Carvalho, David Puelz, and Jingyu He
Bayesian Analysis 13 (2018). No 1
[link to journal]

Variable Selection in Seemingly Unrelated Regressions with Random Predictors
David Puelz, P. Richard Hahn, and Carlos M. Carvalho
Bayesian Analysis 12 (2017). No 4
[link to journal]

Optimal ETF Selection for Passive Investing
David Puelz, P. Richard Hahn, and Carlos Carvalho
Working paper
[arXiv:1510.03385]

Presentations

Randomization, Machine Learning, and Everything in Between
New College of Florida
Sarasota, FL — February 2024

Randomization, Machine Learning, and Everything in Between
University of Austin
Austin, TX — January 2024

Causal Machine Learning
University of Texas at Austin — Texas Women in Economics invited speaker
Austin, TX — October 2023

Causal Effect Testing under Interference
University of Texas at Austin — Salem Center for Policy Causal Inference Seminar
Austin, TX — May 2022

A Graph-Theoretic Approach to Randomization Tests of Causal Effects Under General Interference
Society for Political Methodology Annual Meeting — NYU
Virtual — July 2021

Is Machine Learning Useful for Modeling the Cross-Section of Returns?
Statistical Methods in Finance Conference
Virtual — June 2021

Randomization Tests of Causal Effects Under General Interference
International Indian Statistical Association Annual Meeting
Virtual — May 2021

Randomization Tests of Causal Effects Under General Interference
Arizona State University
Virtual — November 2020

A Graph-Theoretic Approach to Randomization Tests of Causal Effects Under General Interference
Design and Analysis of Experiments — University of Tennessee, Knoxville
Knoxville, TN — October 2019

A Graph-Theoretic Approach to Randomization Tests of Causal Effects Under General Interference
Advances with Field Experiments — University of Chicago
Chicago, IL — September 2019

A Graph-Theoretic Approach to Randomization Tests of Causal Effects Under General Interference (Poster)
*Best Poster prize winner
Society for Political Methodology Annual Meeting — MIT
Cambridge, MA — July 2019

Monotonic Effects of Characteristics on Returns
Eastern Asia ISBA Conference — Kobe University
Kobe, JP — July 2019

A Graph-Theoretic Approach to Randomization Tests of Causal Effects Under General Interference
Economics Workshop — Keio University
Tokyo, JP — July 2019

Monotonic Effects of Characteristics on Returns
Seminar on Bayesian Inference in Econometrics and Statistics — Brown University
Providence, RI — May 2019

Randomization Tests of Causal Effects Under General Interference
Atlantic Causal Inference Conference — McGill University
Montreal, CA — May 2019

Randomization Tests of Causal Effects Under General Interference
international conference on design of experiments — University of Memphis
Memphis, TN — May 2019

Randomization Tests of Causal Effects Under General Interference
Chicago Booth Econometrics and Statistics Seminar
Chicago, IL — February 2019

Monotonic Effects of Characteristics on Returns
Chicago Booth Research Workshop
Chicago, IL — December 2018

Utility-based Feature Selection for Econometrics
International Society for Bayesian Analysis World Meeting
Edinburgh, UK — June 2018

Posterior Summarization
University of Notre Dame Mendoza School of Business
South Bend, IN — November 2017

Utility-based Feature Selection for Finance and Econometrics
IROM PhD Seminar. University of Texas.
Austin, TX — November 2017

Regret-based Selection
Informs Annual Meeting
Houston, TX — October 2017

Sparse Dynamic Portfolio Selection
Joint Statistical Meetings
Baltimore, MD — August 2017

Sparse Dynamic Portfolio Selection
Informs Advances in Decision Analysis
Austin, TX — June 2017

Regret-based Selection
Seminar on Bayesian Inference in Econometrics and Statistics — Washington University
St. Louis, MO — May 2017

Penalized Utility Estimators in Finance
IROM Department Symposium. University of Texas
Austin, TX — February 2017

Posterior Summarization in Finance
IROM PhD Seminar. University of Texas
Austin, TX — November 2016

Sparse Mean-Variance Portfolios
Joint Statistical Meetings
Chicago, IL — August 2016

Penalized Utility Estimators in Finance
International Society for Bayesian Analysis World Meeting
Sardinia, Italy — June 2016

Penalized Utility Estimators in Finance
Seminar on Bayesian Inference in Econometrics and Statistics — University of Pennsylvania
Philadelphia, PA — April 2016

Sparse ETF Investing
IROM PhD Seminar. University of Texas
Austin, TX — March 2016
Penalized Utility Estimators in Finance
Goldman Sachs & Co
New York City, NY — February 2016

The ETF Tangency Portfolio
Seminar on Bayesian Inference in Econometrics and Statistics — Washington University
St. Louis, MO — May 2015

Teaching (UT Austin)

Introduction to Machine Learning — MSBA (full-time and working professionals) — 2021, 2022, 2023, 2024
Policy Research Lab — Undergraduate — 2021, 2022, 2023, 2024
Data Science for Business Applications — Undergraduate — 2023
Data Science for Economics and Policy — Undergraduate — 2023
Statistics for Executives — Executive MBA — 2023
Machine Learning in Finance — PhD — 2022

Honors

PolMeth Faculty Poster Award
Society for Political Methodology Annual Conference — 2019

Graduate Continuing Fellowship
University of Texas Graduate School — 2017 - 2018

Professional Development Award
University of Texas McCombs School of Business — 2015 - 2016

Dean's Fellowship
University of Texas McCombs School of Business — 2013 - 2018

Bonham Fellowship
University of Texas McCombs School of Business — 2014

Jastrow Fellowship
University of Texas McCombs School of Business — 2013

Rae Shortt Prize (excellence in mathematics)
Wesleyan University — 2010

Robertson Prize (outstanding sophomore in mathematics)
Wesleyan University — 2009

Service

Referee for: Journal of the American Statistical Association, Journal of the Royal Statistical Society, Annals of Applied Statistics, Journal of Business and Economic Statistics, Neural Computing and Applications, Canadian Journal of Statistics, Econometrics and Statistics, Journal of Statistical Theory and Practice.

Chicago Booth Research Staff Advisory Group, 2020 - 2021.

Employment

Goldman Sachs & Co. 2011 - 2012
Investment Management Division
Analyst