

## Experience

The University of Austin	2024 - present
Center for Science, Technology, Engineering, and Mathematics	
Associate Professor of Statistics and Data Science	
The University of Texas at Austin	2021 - 2024
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: <i>causal inference, randomizations, networks, machine learning, applications of statistics</i>	
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: <i>Bayesian modeling, causal inference, applications of statistics</i>	
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

*Heterogeneous Treatment Effect Estimation under Noncompliance with Bayesian Tree Ensembles*  
Jared Fisher, David Puelz, and Sameer Deshpande  
Submitted (2025)

*The Impact of Financial Literacy on Well-being: Heterogeneous Effects from Bayesian Tree Ensembles*  
David Puelz, Myeongrok Doh, and Robert Puelz  
Submitted (2025)

*Identification of High-risk Variables for Pediatric Patients with Anomalous Aortic Origin of the Right Coronary using Statistical Modeling*

Charles Puelz and David Puelz

In preparation (2025)

*Identity Authoritarianism and Religious Replacement*

David Puelz and Morgan Marietta

In preparation (2025)

*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)

*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

Identification of High-risk Variables for Pediatric Patients with Anomalous Aortic Origin of the Right Coronary Artery

Texas Children's Hospital

Houston, TX — December 2024

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

The University of Austin

Foundations of Science I — Undergraduate — 2025

Quantitative Reasoning II — Undergraduate — 2025

Special Topics: Statistical Learning — Undergraduate — 2025

Quantitative Reasoning I — Undergraduate — 2024

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**

Statistical Expert Witness 2023 - present

Goldman Sachs & Co. 2011 - 2012

Investment Management Division

Analyst