

Shawn M. Santo

CONTACT INFORMATION

Duke University
Department of Statistical Science
214 Old Chemistry Bldg.
Box 90251
Durham, NC 27708

<https://shawnsanto.com/>
shawn.santo@duke.edu

EDUCATION

Michigan State University, East Lansing, Michigan

Ph.D., Statistics, December 2018

- Dissertation: “Statistical inference with high-dimensional dependent data”
- Adviser: Ping-Shou Zhong

Oklahoma State University, Stillwater, Oklahoma

M.S., Quantitative Financial Economics, May 2013

- Area of concentration: Risk Management

Kutztown University of Pennsylvania, Kutztown, Pennsylvania

B.S., Mathematics, May 2011

- Area of concentration: Applied Mathematics

B.S., Business Administration, May 2011

- Area of concentration: Finance
- Minor area of concentration: Economics

ACADEMIC EMPLOYMENT

Duke University, Durham, North Carolina

Assistant Professor of the Practice, Department of Statistical Science Jul 2019 - present

Michigan State University, East Lansing, Michigan

Fixed Term Instructor, Department of Statistics and Probability May 2017 - Jun 2019

Graduate Teaching Assistant, Department of Statistics and Probability Aug 2013 - May 2018

HONORS AND AWARDS

William L. Harkness Faculty Award, 2017: Outstanding Course Development, Michigan State University

William L. Harkness Award, 2015: Outstanding Graduate Student Teaching, Michigan State University

16th place Rotman International Trading Competition, 2012: University of Toronto

Outstanding Presentation Award, 2011: Quantitative Financial Economics Alumni Weekend, Oklahoma State University

Top Academic Achievement in Finance and Economics Award, 2011: Kutztown University of Pennsylvania

Outstanding Mathematics Student Award, 2011: Kutztown University of Pennsylvania

Academic Scholarship, 2006-2011: Kutztown University of Pennsylvania

Pennsylvania State Athletic Conference Scholar Athlete, 2006-2009: Kutztown University of Pennsylvania

Athletic Swimming Scholarship, 2006-2009: Kutztown University of Pennsylvania

ARTICLES Santo, S. & Zhong, P-S. (2020). Homogeneity Tests of Covariance and Change-Points Identification for High-Dimensional Functional Data. [arXiv:2005.01895](https://arxiv.org/abs/2005.01895).

Zhong, P-S., Li, R., & Santo, S. (2019). Homogeneity tests of covariance matrices with high-dimensional longitudinal data. *Biometrika*, 106(3), 619-634. doi.org/10.1093/biomet/asz011

GRANTS **Teaching & Course Innovation**

David L. Paletz Innovative Teaching Fund, Duke University. Competition-based learning enhancements to Statistical Computing - STA 323. Spring 2020. \$1,200.

SOFTWARE Zhong, P-S., Li, R., & Santo, S. (2019). Maintainer: Shawn Santo. **HDCovMatTest**: Homogeneity tests of covariance matrices with high-dimensional longitudinal data. R package version 1.0.0.

Santo, S. & Zhong, P-S. (2020). Maintainer: Shawn Santo. **TechPhD**: Tests and Estimation of Covariance cHange-Points for High-dimensional Data. R package version 1.0.0.

TALKS Homogeneity tests of covariance matrices with high-dimensional longitudinal data. International Chinese Statistical Association Applied Statistics Symposium, New Brunswick, New Jersey, 2018.

TEACHING **Duke University**, Durham, North Carolina

Introduction to Data Science Spring 2020

Statistical Computing Summer 2020; Spring 2020

Statistical Programming* Summer 2020; Fall 2019

* indicates graduate course

Michigan State University, East Lansing, Michigan

Computational Methods for Data Science Fall 2017, 2018

Introduction to Data Science Spring 2019

Probability and Statistics for Business Summer 2015

Probability and Statistics for Business - Online Summer 2017, 2018, 2019

Statistical Methods Summer 2014

Statistics for Scientists Spring 2018

COURSE DEVELOPMENT **Michigan State University**, East Lansing, Michigan

Introduction to Data Science Spring 2019

MENTORING **Undergraduate Honors Thesis**

Ethan Shen Spring 2021

Michael Tan Spring 2020

	Undergraduate Independent Study	
	Ana Belac	Spring 2020
DEPARTMENTAL SERVICE	Duke University , Durham, North Carolina	
	Computing Committee	Jul 2019 - present
	Graduate Orientation Computing Bootcamp Instructor	Aug 2020, 2019
	Michigan State University , East Lansing, Michigan	
	Teaching Assistant Orientation Speaker	Aug 2015 - May 2018
	Critical Function Service	Aug 2015 - May 2018
	Committee of the Whole Graduate Representative	Aug 2014 - May 2018
	Major Curriculum Subcommittee	Aug 2014 - May 2018
	Lead Teaching Assistant	Aug 2016 - May 2017
PROFESSIONAL SERVICE	Reviewer: Journal of Statistics Education	2019 - present
	Chair: New developments in large-scale data analysis.	Jul 2018
	International Chinese Statistical Association Applied Statistics Symposium	
PROFESSIONAL EMPLOYMENT	Oneok Inc. , Tulsa, Oklahoma	
	Energy Price Risk Analyst Intern	Aug 2012 - Aug 2013
	Produced daily reports on natural gas and natural gas liquids positions. Calculated portfolio value-at-risk using Panorama software. Monitored traders' positions.	
	Kutztown University of Pennsylvania , Kutztown, Pennsylvania	
	Student Investment Analyst	Jan 2009 - Dec 2009
	Actively managed approximately \$200,000 of the University's endowment fund. Led five students in the analysis and decision process of buying and selling stocks and bonds. Prepared and distributed weekly portfolio performance statements.	
	Fastenal Company , Reading, Pennsylvania	
	Intern	May 2008 - Aug 2008
	Processed and delivered customer orders. Created an in-store marketing display for products. Assisted in inventory management.	
COMPUTER SKILLS	Computer Programming and Numerical Analysis	
	R, Python, C/C++, MATLAB	
	Cluster and Distributed Computing	
	Apache Spark, Slurm Workload Manager, TORQUE	
	Application Development	
	R Shiny	
	Editing, Productivity, Video	
	L ^A T _E X, Microsoft Office, Google Docs, Camtasia, Snagit	

Operating Systems

macOS, Microsoft Windows, Linux

MEMBERSHIPS

American Statistical Association