

# Shawn M. Santo

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## CONTACT INFORMATION

Duke University  
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## 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      July 2019 - present

**Michigan State University**, East Lansing, Michigan

Fixed Term Instructor, Department of Statistics and Probability      May 2017 - June 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	
PEER REVIEWED PUBLICATIONS	Zhong, P-S., Li, R., & Santo, S. (2019). Homogeneity tests of covariance matrices with high-dimensional longitudinal data. <i>Biometrika</i> , 106(3), 619-634. <a href="https://doi.org/10.1093/biomet/asz011">doi.org/10.1093/biomet/asz011</a>	
PAPERS IN PREPARATION	Santo, S. & Zhong, P-S. Covariance Change Point Detection and Identification with High-Dimensional Functional Data. <i>Manuscript</i> .	
	Santo, S., Zhong, P-S., & Steibel, J. A hidden Markov approach for QTL mapping using allele-specific expression SNPs. <i>Manuscript</i> .	
GRANTS	<b>Teaching &amp; Course Innovation</b>	
	David L. Paletz Innovative Teaching Fund, Duke University. Competition-based learning enhancements to Statistical Computing - STA 323. 01/08/2020 - 04/22/2020. \$1,200.	
SOFTWARE	Zhong, P-S., Li, R., & Santo, S. (2019). Maintainer: Shawn Santo. <b>HDCovMatTest</b> : Homogeneity tests of covariance matrices with high-dimensional longitudinal 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	<b>Duke University</b> , Durham, North Carolina	
	Statistical Programming	Fall 2019
	<b>Michigan State University</b> , 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	<b>Michigan State University</b> , East Lansing, Michigan	
	Introduction to Data Science	Spring 2019
MENTORING	<b>Undergraduate Thesis</b>	
	Michael Tan	AY 2019 - 2020
	<b>Undergraduate Independent Study</b>	
	Ana Belac	Spring 2020

DEPARTMENTAL SERVICE	<b>Duke University</b> , Durham, North Carolina	
	Computing Committee	July 2019 - present
	Graduate Orientation Computing Bootcamp Instructor	Aug 2019
	<b>Michigan State University</b> , 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. International Chinese Statistical Association Applied Statistics Symposium	July 2018
PROFESSIONAL EMPLOYMENT	<b>Oneok Inc.</b> , 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.	
	<b>Kutztown University of Pennsylvania</b> , 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.	
	<b>Fastenal Company</b> , 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 and Productivity	
	L <sup>A</sup> T <sub>E</sub> X, Microsoft Office, Google Docs, Camtasia, Snagit	
Operating Systems		
macOS, Microsoft Windows, Linux		

MEMBERSHIPS

American Statistical Association

International Chinese Statistical Association