

Shanshan Wang

shanshan.1.wang@wmich.edu | [LinkedIn](#) | [Google Scholar](#)

PERSONAL DATA

Address 5514 Everett Tower,
Department of Statistics,
Western Michigan University,
1903 W. Michigan Ave., Kalamazoo, MI 49008, USA

Email shanshan.1.wang@wmich.edu

Last Updated September 2026

RESEARCH INTERESTS

Quantile regression, Sufficient dimension reduction, Functional data analysis.

PROFESSIONAL EXPERIENCE

Tenure-Track Assistant Professor <i>Department of Statistics, Western Michigan University</i>	08/2026 – Present <i>Kalamazoo, MI</i>
---	---

EDUCATION

University of North Carolina at Charlotte <i>Ph.D. in Applied Mathematics (Statistics track)</i>	Charlotte, NC <i>May 2026</i>
• Thesis: Dimension Reduction of Conditional Quantiles for Functional Data with Its Extension • Advisor: Dr. Eliana Christou	
Ball State University <i>M.A. in Actuarial Science</i>	Muncie, IN <i>May 2021</i>
Ball State University <i>B.Sc. in Business Administration</i>	Muncie, IN <i>May 2019</i>
HuaQiao University <i>B.Sc. in Business Administration</i>	Fujian, China <i>May 2019</i>

HONORS AND AWARDS

- **Graduate School Summer Fellowship**, University of North Carolina at Charlotte, 2025, \$8,000
- **Conference Travel Scholarship**, University of North Carolina at Charlotte, 2024, \$1,500
- **Graduate and Professional Student Government Travel Grant**, University of North Carolina at Charlotte, 2024, \$350
- **Third Place Award for Oral Presentation**, Graduate Research Symposium, University of North Carolina at Charlotte, 2024
- **Harold J. Gale Scholarship**, Ball State University, 2020, \$1,000

PUBLICATIONS

Papers Published

1. **Wang, S.**, Christou, E., Solea, E., and Song, J. (2026). Nonlinear Sufficient Dimension Reduction for Conditional Quantiles in Scalar-on-Function Single-Index Model, *Statistics and Computing*, 36(1), 32.
Link: <https://doi.org/10.1007/s11222-025-10787-4>
2. **Wang, S.**, Christou, E., Solea, E., and Song, J. (2025). Dimension Reduction for the Conditional Quantiles of Functional Data with Categorical Predictors, *Biometrical Journal*, 67, 6.
Link: <https://doi.org/10.1002/bimj.70102>
3. Christou, E., Solea, E., **Wang, S.**, and Song, J. (2025). Sufficient Dimension Reduction for Conditional Quantiles of Functional Data, *Statistica Sinica*, doi: 10.5705/ss.202024.0211
Link: http://www3.stat.sinica.edu.tw/ss_newpaper/SS-2024-0211_na.pdf

Manuscripts under review

1. Summerlee, D., Sun, S., **Wang, S.**, Christou, E., Gao, W. (2026+). Functional Data Approaches for Hypertension: A Comparative Study of Statistical and Machine Learning Models Using NHANES (*Under review*)

Manuscripts in preparation

1. Quantile Martingale Difference Divergence for Functional Predictors: Dimension Reduction in Conditional Quantile Models (with Dr. Eliana Christou)

Software

1. Christou, E., Donkor, P., Hogshead, N., Solea, E., Song, J., Stitz, A., **Wang, S.** (2024+), *fquantdr: Dimension Reduction Techniques for Conditional Quantiles of Functional Data*. R package, in progress
<https://github.com/elianachristou/fquantdr>

PRESENTATIONS

Invited Conference Talks

1. *Nonlinear Sufficient Dimension Reduction for Conditional Quantiles in Scalar-on-Function Single-Index Models*, 20th International Joint Conference on Computational and Financial Econometrics (CFE) and Computational and Methodological Statistics (CMStatistics), CFE-CMStatistics 2026, HTW Berlin, University of Applied Sciences, Berlin, Germany, December 2026
2. *Nonlinear Sufficient Dimension Reduction for Conditional Quantiles in Scalar-on-Function Single-Index Models*, 9th International Conference on Econometrics and Statistics (EcoSta 2026), Ryukoku University, Kyoto, Japan, August 2026
3. *Nonlinear Sufficient Dimension Reduction for Conditional Quantiles in Scalar-on-Function Single-Index Models*, 39th annual New England Statistics Symposium (NESS 2026), University of Connecticut, Hartford, US, May 2026.

4. *Dimension Reduction for Conditional Quantiles for Functional Data with Categorical Predictors*, 17th International Conference of the ERCIM WG on Computational and Methodological Statistics (CMStatistics 2024), King's College London, London, UK, December 2024
5. *Dimension Reduction for Conditional Quantiles for Functional Data with Categorical Predictors*, 7th International Conference on Econometrics and Statistics (EcoSta 2024), Beijing Normal University, Beijing, China, July 2024

Conference Session Organizer/Chairs

1. **Organizer and Chair of an invited session**, *Recent Advances in Functional Data Modeling and Analysis*, 20th International Joint Conference on Computational and Financial Econometrics (CFE) and Computational and Methodological Statistics (CMStatistics), CFE-CMStatistics 2026, HTW Berlin, University of Applied Sciences, Berlin, Germany, December 2026

Other Presentations and Conferences

1. *Dimension Reduction for Conditional Quantiles for Functional Data with Categorical Predictors*, NISS Virtual New Researchers Conference, June 2025
2. *Dimension Reduction for Conditional Quantiles for Functional Data with Categorical Predictors*, UNCC Math Day Symposium, October 2024
3. *Dimension Reduction for Conditional Quantiles for Functional Data with Categorical Predictors*, Graduate Research Symposium, March 2024

COURSES TAUGHT

Western Michigan University

- Graduate level course
 - STAT 5850: Applied Data Mining (Fall 2026)
 - STAT 5670: Statistical Design and Analysis of Experiments (Spring 2027)
- Undergraduate level course
 - STAT 2630: Introduction to Mathematics Statistics (Spring 2027)

University of North Carolina at Charlotte

- STAT 2223: Elements of Statistics II (Fall 2025)
- STAT 2122: Introduction to Probability and Statistics (Spring 2022, Summer 2022, Fall 2024, Spring 2026)
- MATH 1241: Calculus I (Fall 2021)

Ball State University

- MATH 125: Quantitative Reasoning (Fall 2020, Spring 2021)

CERTIFICATIONS

- Actuarial Exam P (Probability), November 2018
- Actuarial Exam FM (Financial Mathematics), December 2018
- Actuarial Exam STAM (Short-Term Actuarial Mathematics), February 2020
- Actuarial Exam IFM (Investment and Financial Markets), March 2021