

Rui Xie

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- EMPLOYMENT**
- Assistant Professor** Aug 2019 – Present
- Department of Statistics and Data Science
 - **University of Central Florida**, Orlando, Florida, USA
- Biostatistician** Sep 2020 – Present
- College of Nursing
 - **University of Central Florida**, Orlando, Florida, USA
- EDUCATION**
- University of Georgia**, Department of Statistics, Athens, Georgia, USA
- Ph.D. in Statistics, Aug 2013 – May 2019
 - Dissertation: Sampling for Streaming Data
 - Advisors: Ping Ma and T.N. Sriram
 - Focus: Sampling, Time Series, Big Data, Distributed and Decentralized Computing, Spatial Statistics, and Engineering Statistics.
- Georgia Institute of Technology**, H. Milton School of Industrial and Systems Engineering, Atlanta, Georgia, USA
- M.S. in Statistics, Aug 2011 – May 2013
- Xiamen University**, Xiamen, Fujian, China
- B.S. in Physics, Aug 2007 – Jul 2011
 - B.S. in Quantitative Finance

PUBLICATIONS * indicate student coauthors

PEER-REVIEWED PUBLICATIONS

- [1] Yawen Pan*, Ladda Thiamwong, and **Rui Xie**. 2023. The effects of nurse driven mobility intervention (NDMI) on activities of daily living, mobility, fear of falling, and balance performance in hospitalized older patients: A pilot study. *Geriatric Nursing*, Volume 49, Pages 193-198. [Impact Factor: 1.901]
- [2] Xiaoqing Wan*, Nichole R Lighthall, and **Rui Xie**. 2022. Consistent and robust predictors of Internet Use among older adults over time identified by machine learning. *Computers in Human Behavior*. 137, 107413. [Impact Factor: 9.79]
- [3] Ladda Thiamwong, **Rui Xie**, Joon-Hyuk Park, Nichole Lighthall, Victoria Loerzel, Jeffrey Stout. 2022. A Technology-based Body-mind Intervention For Low-income American Older Adults. *Innovation in Aging*. 6 (Supplement 1), 273-273. [Impact Factor: 3.352]
- [4] Hyer, S., Vaughan, S., Davis, J.W., **Xie, R.**, Misra, D. & Giurgescu, C. 2022. The Association of Avoidance Coping with Gestational Weight Gain among Pregnant Black Women. *Western Journal of Nursing Research*. 01939459221127800 [Impact Factor: 1.774]
- [5] Choudhury R*, Park JH, Thiamwong L, **Xie R**, Stout JR. (forthcoming/in press) 2022. Objectively Measured Physical Activity Levels and Associated Factors in Older US Women During the COVID-19 Pandemic: A Cross-sectional Study. *JMIR Aging*. 5 (3), e38172. [Impact Factor: 4.515]
- [6] Bourgault, AM., Rathbun, K., Sole, M.L., Deb, C., Aguirre, L., Mehta, D., and **Xie, R.** 2022+. Microbiome Profile Informs Cleansing and Storage Practices for Reusable Feeding Tube Stylets in Critical Care. *Nutrition in Clinical Practice*. 2022; 1- 14. doi:10.1002/ncp.10904 [Impact Factor: 3.204]
- [7] Annette Bourgault, Chirajyoti Deb, Lillian Aguirre, **Rui Xie**, Kimberly Rathbun, Veronica Pemberton, Mary Lou Sole. 2022. Microbiome Analysis Informs Small-bore Feeding Tube Stylet Cleansing And Storage Practices. *Critical Care Medicine*. 50 (1) 286. [Impact Factor: 9.296]
- [8] Annette Bourgault, **Rui Xie**, Steven Talbert, Mary Lou Sole. Association of Enteral Feeding with Microaspiration in Critically Ill Adults. 2022. *Applied Nursing Research*. 67, 151611. [Impact Factor: 2.257]

- [9] Hyer, S., Hu, W.*, Hu, M.*, Davis, J.W., **Xie, R.**, Giurgescu, C. (in press). Relationship with the Father of the Baby and Pregnancy-Related Anxiety among Pregnant Black Women. 2022. *MCN, The American Journal of Maternal Child Nursing*. 47 (4), 213-219. [Impact Factor: 1.412]
- [10] Jean W. Davis, Suzanne Hyer, **Rui Xie**, Valerie C. Martinez, Jenna M. Wheeler*, Dawn P. Misra, and Carmen Giurgescu. Physical Activity Changes Among Non-Hispanic Black Pregnant Women. 2022. *Public Health Nursing*. 39 (4) 744-751. [Impact factor: 1.462]
- [11] Xin Xing, **Rui Xie**, and Wenxuan Zhong. Model-based dictionary learning: sparse coding beyond Gaussian independent model. 2022. *Computational Statistics Data Analysis* 166 (2022): 107336. [Impact factor: 1.681]
- [12] **Rui Xie** and Dazhong Wu. Tool Wear Prediction with Optimal Transport-based Transfer Learning. 2021. *Manufacturing Letters* 29, 104-107. [Impact factor: 5.533]
- [13] Wei Fan*, Kunpeng Liu*, **Rui Xie**, Hao Liu, Yong Ge, Yanjie Fu. FairGAE: Fair Graph Auto-Encoder towards Unbiased Graph Embeddings. 2021. *21st IEEE International Conference on Data Mining (IEEE ICDM 2021)*. [Impact factor: 3.52]
- [14] Bourgault AM, Talbert, S, **Xie R**, Sole ML, Mehta D, Abomoelak B, Deb, C. 2021. Relationship of Enteral Feeding with Microaspiration in Critically Ill Adults. *American Journal of Critical Care*, 29(3):e1. [Impact factor: 2.105]
- [15] Logan Ganzen*, MeeJung Ko, Mengrui Zhang*, **Rui Xie**, Yongkai Chen*, Liyun Zhang, Rebecca James, Jeff Mumm, Richard van Rijn, Wenxuan Zhong, Chi Pui Pang, Mingzhi Zhang, Motokazu Tsujikawa, Yuk Fai Leung. 2020. Drug Screening with Zebrafish Visual Behavior Identifies Carvedilol as a Potential Treatment for Retinitis Pigmentosa. *Scientific Reports* Accepted. 2021+. 2020.07.28.225789; doi: <https://doi.org/10.1101/2020.07.28.225789> [Impact factor: 4.380]
- [16] Fangyu Li, Fengyuan Sun, Naihao Liu, **Rui Xie**. 2021. Denoising Seismic Signal via Resampling Local Applicability Functions. Submitted, *IEEE Geoscience and Remote Sensing Letters* PP(99):1-5. DOI: 10.1109/LGRS.2020.3048110. [Impact factor: 3.966]
- [17] Cheng Meng*, **Rui Xie**, Xinlian Zhang, Abhyuday Mandal, Wenxuan Zhong, and Ping Ma. 2020. LowCon: A Design based subsampling in big data with application to robust linear regression. *Journal of Computational and Graphical Statistics*. DOI: 10.1080/10618600.2020.1844215 [Impact factor: 2.319]
- [18] Fangyu Li, **Rui Xie**, Zengyan Wang, Lulu Guo, Jin Ye, Ping Ma, WenZhan Song. 2020. Online Distributed IoT Security Monitoring with Multidimensional Streaming Big Data. *IEEE Internet of Things Journal*, vol. 7, no. 5, pp. 4387-4394, May 2020, doi: 10.1109/JIOT.2019.2962788. [Impact factor: 11.705]
- [19] Yanfei Lu*, Zengyan Wang*, **Rui Xie**, Jialin Zhang, Zhipeng Pan, Steven Y Liang. 2020. Bayesian optimized deep convolutional network for bearing diagnosis. *The International Journal of Advanced Manufacturing Technology* 108, pages313–322(2020). <https://doi.org/10.1007/s00170-020-05390-y>. [Impact factor: 3.320]
- [20] Yanfei Lu*, **Rui Xie**, Steven Y Liang. 2020. CEEMD-assisted kernel support vector machines for bearing diagnosis *The International Journal of Advanced Manufacturing Technology* 106, pages3063–3070(2020). <https://doi.org/10.1007/s00170-019-04858-w>. [Impact factor: 3.320]
- [21] Fangyu Li, **Rui Xie**, Bowen Yang, Lulu Guo, Ping Ma, Jianjun Shi, Jin Ye, WenZhan Song. 2019. Detection and Identification of Cyber and Physical Attacks on Distribution Power Grids with PVs: An Online High-Dimensional Data-driven Approach. *IEEE Journal of Emerging and Selected Topics in Power Electronics*, doi: 10.1109/JESTPE.2019.2943449. [Impact factor: 4.472]
- [22] Yanfei Lu*, Zengyan Wang*, **Rui Xie**, Steven Liang. 2019. Bayesian Optimized Deep Convolutional Network for Electrochemical Drilling Process *Journal of Manufacturing and Materials Processing*. 2019; 3(3):57. <https://doi.org/10.3390/jmmp3030057> [Impact factor: 2.57]
- [23] Lu, Yanfei*, **Rui Xie**, and Steven Y. Liang. 2019. CEEMD-assisted bearing degradation assessment using tight clustering. *The International Journal of Advanced Manufacturing Technology* (2019): 1-12. <https://doi.org/10.1007/s00170-019-04078-2>. [Impact factor: 3.320]
- [24] Lu, Yanfei*, **Rui Xie**, and Steven Y. Liang. 2019. Extraction of weak fault using combined dual-tree wavelet and improved MCA for rolling bearings. *The International Journal of Advanced Manufacturing Technology* (2019): 1-12. <https://doi.org/10.1007/s00170-019-04065-7>. [Impact factor: 3.320]

- [25] Lu, Yanfei*, **Rui Xie**, and Steven Y. Liang. 2019. Bearing Fault Diagnosis with Nonlinear Adaptive Dictionary Learning. *The International Journal of Advanced Manufacturing Technology* (2019): 1-13. <https://doi.org/10.1007/s00170-019-03455-1>. [Impact factor: 3.320]
- [26] **Rui Xie**, Zengyan Wang*, Shuyang Bai, Ping Ma, and Wenxuan Zhong. Online decentralized leveraging sampling for streaming multivariate time series. *The 22nd International Conference on Artificial Intelligence and Statistics (AISTATS 2019)*. [Impact factor: 4.88]
- [27] **Rui Xie**, Mengrui Zhang*, Prahatha Venkatraman, Xinlian Zhang*, Gaonan Zhang, Robert Carmer, Skylar A. Kantola, Chi Pui Pang, Ping Ma, Mingzhi Zhang, Wenxuan Zhong, and Yuk Fai Leung. Normalization of large-scale behavioural data collected from zebrafish. *PLoS ONE* 14(2): e0212234. <https://doi.org/10.1371/journal.pone.0212234> [Impact factor: 3.24]
- [28] **Rui Xie**, Fangyu Li, Zengyan Wang*, and WenZhan Song. Large scale randomized learning guided by physical laws with applications in full waveform inversion. *2018 IEEE Global Conference on Signal and Information Processing (GlobalSIP)*. [Impact factor: 1.79]
- [29] Fangyu Li, **Rui Xie**, WenZhan Song, and Hui Chen. Optimal seismic reflectivity inversion: data-driven ℓ_p -loss- ℓ_q -regularization sparse regression. *IEEE Geoscience and Remote Sensing Letters*, (2018). PP. 1-5. 10.1109/LGRS.2018.2881102. [Impact factor: 3.966]
- [30] Lu, Yanfei, **Rui Xie**, and Steven Y. Liang. Adaptive online dictionary learning for bearing fault diagnosis. *The International Journal of Advanced Manufacturing Technology*, (2018). <https://doi.org/10.1007/s00170-018-2902-0>. [Impact factor: 3.320]
- [31] Lu, Yanfei, **Rui Xie**, and Steven Y. Liang. Detection of weak fault using sparse empirical wavelet transform for cyclic fault. *The International Journal of Advanced Manufacturing Technology*, (2018)99: 1195-1201. [Impact factor: 3.320]
- [32] Li, Fangyu, **Rui Xie**, Wenzhan Song, Tao Zhao, and Kurt Marfurt. Optimal ℓ_q norm regularization for sparse reflectivity inversion. *2017 SEG International Exposition and Annual Meeting*. Society of Exploration Geophysicists, (2017): 677-681.
- [33] Nural, Mustafa V., Michael E. Cotterell, Hao Peng, **Rui Xie**, Ping Ma, and John A. Miller. Automated predictive big data analytics using ontology based semantics. *International Journal of Big Data*, 2.2 (2015): 43-56. [Impact factor: 11.09]

BOOK CHAPTER

- [34] Zhang, Xinlian, **Rui Xie**, and Ping Ma. Statistical Leveraging Methods in Big Data. In: Härdle W., Lu HS., Shen X. (eds) *Handbook of Big Data Analytics*. Springer Handbooks of Computational Statistics, Springer, Cham, 2018. 51-74.
- [35] Yiwen Liu and **Rui Xie**. 2023+. Statistical Principles: Common Issues in Analysis, In: Adam E. M. Eltorai and Daryl Tan-Yeung Lau (eds) *Translational Gastroenterology*. Under Review.
- [36] **Rui Xie** and Yiwen Liu. 2023+. Statistical Principles: Distributions, In: Adam E. M. Eltorai and Daryl Tan-Yeung Lau (eds) *Translational Gastroenterology*. Under Review.

REFEREED CONFERENCE PODIUM/POSTER/ABSTRACT

- [37] Davis, J.W., Hyer, S., **Xie, R.**, Wheeler, J.M., Martinez, V., Misra, D., Wilbur, J., Giurgescu, C. Among African American pregnant people the association of neighborhood disorder with depressive symptoms was modified by physical activity. [Poster] *2022 APHA Annual Meeting*. American Public Health Association. Boston, MA.
- [38] Hyer, S., Vaughan, S., **Xie, R.**, Misra, D. & Giurgescu, C. Neighborhood stressors, depressive symptoms, and gestational weight gain among Black women. [Podium Presentation]. 2022, September 15-17. *Council for the Advancement of Nursing Science (CANS) State of the Science Conference*, Washington, DC.
- [39] Hyer, S., Hu, W., **Xie R.**, Davis, J.W., Giurgescu, C. (2022, March). Does avoidance coping effect gestational weight gain among pregnant Black women? [Poster Presentation]. Annual Midwest Nursing Research Society Annual Research Conference, Schaumburg, IL
- [40] Bourgault AM, Deb C, Aguirre L, **Xie R**, Emery-Rathbun K, Pemberton*, V. Sole ML. Microbiome Analysis Informs Small-Bore Feeding Tube Stylet Cleansing and Storage Practices. 2022. *The Society of Critical Care Medicine's (SCCM) 51st Critical Care Congress*.

- [41] Aleatha Rossler*, Ladda Thiamwong, **Rui Xie**, Renoa Choudhury, Oscar Garcia, Joon Park, Jeffrey Stout. Fear of Falling, Depression and Fall Risk in Older Adults. *Gerontological Society of America 2021 Annual Scientific Meeting*.
- [42] Renoa Choudhury*, Ladda Thiamwong, Oscar Garcia*, **Rui Xie**, Jeffrey R. Stout, Joon-Hyuk Park. Physical Activity Intensity in Older Adults during COVID-19 Pandemic: An Accelerometers-Based Assessment. *Gerontological Society of America 2021 Annual Scientific Meeting*.
- [43] Ladda Thiamwong, Oscar Garcia*, Renoa Choudhury*, Joon-Hyuk Park, Aleatha Rossler*, Jeffrey Stout, **Rui Xie**. Feasibility and Acceptability of the Technology-Based Fall Risk Assessments for Older Adults. *Gerontological Society of America 2021 Annual Scientific Meeting*.
- [44] Ladda Thiamwong, **Rui Xie**, Renoa Choudhury*, Joon-Hyuk Park, Oscar Garcia*, Jeffrey Stout. Associations among Fall Risk Appraisal, Body Composition, and Physical Activity in Older Adults. *Gerontological Society of America 2021 Annual Scientific Meeting*.

UNDER REVIEW OR IN PREPARATION

- [45] **Rui Xie**, Shuyang Bai and Ping Ma. Optimal sampling designs for online estimation of streaming multi-dimensional time series. Under review, *Journal of the Royal Statistical Society: Series B (Statistical Methodology)*.
- [46] **Rui Xie**, T. N. Sriram, Wei Biao Wu, and Ping Ma. Online sequential leveraging sampling method for streaming data. Under Revision, *Annals of Applied Statistics*.
- [47] Jean Davis, **Rui Xie**, Suzanne Hyer, Joellen Edwards. Disabled Veterans' Physical Activity Habits, Self-Regulation, and Social Support: A Pilot Study. Under Review, *Journal of the American Association of Nurse Practitioners*.
- [48] Renoa Choudhury, Ladda Thiamwong, **Rui Xie**, Jeffrey R. Stout, and Joon-Hyuk Park. Correlates of Objectively Measured Physical Activity among Older US Women During the COVID-19 Pandemic. Submitted. *Journal of Aging and Health*.
- [49] Jean Davis, Suzanne Hyer, **Rui Xie**, Valerie Martinez, Jenna M. Wheeler, Dawn P. Misra, and Carmen Giurgescu. Physical Activity Attenuates the Impact of Neighborhood on Depressive Symptoms Among African American Pregnant Women. In preparation.

GRANTS & PROPOSALS

Active

- United Negro College Fund (UNCF)
 UNCF leveraging big data grant: 1/1/2022- 4/20/2023
 \$15,000
 Role: co-I Effort: 12.5%
 Leveraging Big Data Analytics to Improve the Education and Workforce Outcomes of African American and Hispanic/Latino Students at HBCUs and HSIs.
- R01 MD018025 (PI: Thiamwong) 09/26/2022 - 06/30/2026
 NIH/ National Institute on Minority Health and Health Disparities
 \$602,816
 Role: co-I (PI Ladda Thiamwong (Nursing), Co-Is: Jeffrey Stout (CHIP) Joon-Hyuk Park (CECS) Rui Xie (Statistics), Victoria Loerzel (Nursing), Nichole Lighthall (psychology)) Effort: 15%
 Optimizing a technology-based body and mind intervention to prevent falls and reduce health disparities in low-income populations
- UCF Seed Funding Program - IR: Interdisciplinary Research 3/18/2022-3/31/2023
 Development of Light Physical Activity (LPA) guidelines for safe and effective physical activity intervention in ethnically diverse older adults
 \$45,000
 Role: co-I (PI Ladda Thiamwong (Nursing), Co-Is: Joon-Hyuk Park (CECS) Rui Xie (Statistics), David Fukuda (CHIP))
- 7 R01 MD011575-05 (PI: Giurgescu) 8/8/2019 - 4/30/2023
 NIH
 \$ 3,011,557
 Social stressors and inflammation: A mixed methods approach to preterm birth
 Role: co-I (multiple institutes) Effort: 20%

- 1 F32 NR020295-01 (PI: Hyer) 7/18/2022 – 7/18/2024
 NIH/NIA
 \$70,890
 Role: collaborator (Collaborators: Rui Xie & Carmen Giurgescu) Effort: 5%
 Gestational weight gain and infant birthweight among Black women: Beyond individual-level factors
- Understanding the experiences of COVID-19 survivors Mar 2020
 Drs. Diane and Thomas Andrews Faculty Research Award.
 Role: Biostatistician (PI: Brain Peach)
 \$5,000 Awarded
- Exploring outcomes of FitMoms2B exercise program among African American women with high-risk pregnancy Jan 2020
 UCF Seed Funding Program - ER: Exploratory Research Award.
 Role: Biostatistician (PI: Jean Davis)

Complete

- F31 NR019518 (PI: Rathbun, Kimberly) 12/17/20-12/16/22
 NIH
 Role: Collaborator
 Exploration of the Oral Microbiome in Non-Ventilated Hospitalized Patients
- 5 R03 AG069799-02 (PI: Thiamwong) 9/30/2020 – 6/30/2022
 NIH/NIA
 \$149,000
 Role: co-I (PI Ladda Thiamwong (Nursing), Co-Is: Jeffrey Stout (CHIP) Joon-Hyuk Park (CECS) Rui Xie (Statistics)) Effort: 9%
 Technology-based fall risk assessments for older adults in low-income settings
 The purposes of this study are to (1) examine the feasibility of recruitment and acceptability of technologies and procedures for use among older adults in low-income settings and (2) examine the associations among fall risk appraisal, body composition, and physical activity among older adults in low-income settings.

Pending

- NSF CCRI Welch 2023-2026
 National Science Foundation (NSF)
 Collaborative Research: CCRI: Grand: Virtual Experience Research Accelerator (VERA)
 \$4,292,490
 Role: Investigator Effort: \$90,032
- NIH PAR-22-132 R01 (PI:Thiamwong) 2023 – 2027
 NIH
 Stopping Elderly Accidents, Deaths, and Injuries (STEADI) in Thailand: A Cultural Adaptation and Implementation Program
 \$3,388,081
 Role: co-I Effort: \$445,430
- 1 R01 NR020332-01 (PI: Bourgault) 4/1/2022 - 3/31/2027
 NIH
 \$3,545,410
 Role: co-I Effort: 13%
 Enteral Feeding Intolerance and Gastric Microaspiration in Mechanically Ventilated Patients
 The major goals of this project are to measure microaspiration by measuring tracheal and oral secretions for pepsin A to determine the effects on clinical outcomes and explore an association with EFI in patients in a variety of body positions, as well as identify spontaneous distal feeding tube migration over time.
- 2 R01 NR014508-05A1 (PIs: Sole & Yooseph) 4/1/2022 – 3/31/2027
 NIH
 \$3,660,871
 Role: Co-I Effort: 20%
 From Microbiome to Modeling: Building on the NO-ASPIRATE Study to Inform Outcomes of Mechanical Ventilation

The major goals of this project are to use paired oral and tracheal secretions collected from mechanically ventilated patients in the NO-ASPIRATE study to evaluate the microbiome (microbes) found in the mouth and airway, as well as apply computer modeling to our data to link microbe information with clinical information and outcomes.

Not funded

- NIA Roybal Center Initiative Pilot Award (PI: Peach) 7/1/2022 – 6/30/2023
 Columbia Roybal Center
 \$499,925
 Role: co-I Effort: %5
 Piloting Compressed Exposure Therapy for Post-Intensive Care Syndrome
 The major goals of this project are to 1) determine the feasibility of recruitment, retention, adherence and acceptability of a compressed exposure therapy intervention (CET) for older adults with PICS PTSD; and 2) obtain preliminary estimates of the effectiveness of the CET program for decreasing sensitivity to PICS PTSD triggers and improving secondary outcomes (subjective distress, sleep quality, physical inactivity/activity, and depressive symptoms) for older adults.
- Intensive Care Unit Delirium in the COVID-19 Pandemic Feb 2021
 2021 AACN Sigma Theta Tau Grant. American Association of Critical Care Nurses.
 Role: Statistician (PI: Brian Peach)
 Total \$10,000
- Enhanced regulation for telehealth and intraprofessional simulation education competencies: Addressing health concerns in medically underserved communities Sep 2020
 Center for Regulatory Excellence Grant, National Council of State Boards of Nursing
 Role: Co-I (PI: Desiree Diaz)
 \$15,000 Not awarded
- Proposal Title: ATD: Defending Water Treatment Networks: Cyberattack Detection via Multi-channel Graph Anomaly Structure over Time Mar 2020
 National Science Foundation
 Role: Co-I (PI: Yanjie Fu)
 \$402,475 Not awarded
- Proposal Title: From Microbiome to Modeling: Building on the NO-ASPIRATE Study to Inform Outcomes of Mechanical Ventilation Nov 2020
 National Institutes of Health
 Role: Co-I (PI: Mary Lou Sole)
 Renewal awarded grant \$3,566,233 Not awarded
- Proposal Title: Moms Physical Activity Habit for Health for Black Pregnant Women Oct 2020
 National Institutes of Health
 Role: Co-I (PI: Jean Davis)
 \$432,390 Not awarded

AWARDS & HONORS

- **AACN Research Abstract Award**, American Association of Critical Care Nurses. Jan 2021
 Relationship of Enteral Feeding With Microaspiration in Critically Ill Adults
- **ASA Computing/Graphics Student Paper Award**, American Statistical Association. Jan 2019
- **ICSA Student Paper Award**, International Chinese Statistical Association. Jun 2018
- **Travel Grant**, The 2018 Applied Statistics Symposium. Jun 2018
 International Chinese Statistical Association (ICSA), New Brunswick, NJ, USA
- **Mu Sigma Rho**: The National Statistics Honorary Society. May 2018
- **Travel Grant**, May Institute: Computation and statistics for mass spectrometry and proteomics. Apr 2018
 Northeastern University, Boston, MA, USA
- **Georgia Statistics Day Student Poster Award**. Oct 2017
 Emory University, Atlanta, GA, USA
- **Outstanding Teaching Award**, University of Georgia. May 2017

PRESENTATION

Invited Virtual Presentation, The 15th International Conference of the ERCIM WG on Computational and Methodological Statistics (CMStatistics 2022) Dec 2022
Optimal Online data selection and estimation for multivariate streaming time series with Application to Power Grid Sensor Data
 King's College London, London, England

Invited Presentation, Georgia Statistics Day 2022 <i>Optimal Transport-based Transfer Learning For Smart Manufacturing</i> University of Georgia, Athens, GA, USA	Oct 2022
Department of Statistics & Data Science Colloquium Series <i>Optimal Transport-based Transfer Learning For Smart Manufacturing</i> University of Central Florida, Orlando, FL, USA	Oct 2022
Invited Poster Presentation, JSM 2022 Joint Statistical Meetings. American Statistical Association <i>Optimal Sampling Designs For Online Estimation Of Streaming Multidimensional Time Series</i> Washington, D.C., USA	Aug 2022
Department of Epidemiology & Biostatistics Seminar <i>Optimal sampling designs for online estimation of streaming multi-dimensional time series</i> University of Arizona, Tucson, Arizona, USA	Apr 2022
Department of Statistics & Data Science Colloquium Series <i>Optimal sampling designs for online estimation of streaming multi-dimensional time series</i> University of Central Florida, Orlando, FL, USA	Nov 2021
Invited Presentation, The 34th New England Statistics Symposium <i>Optimal sampling designs for online estimation of streaming multi-dimensional time series</i> University of Rhode Island, South Kingstown, Rhode Island, USA	Sep 2021
Invited Presentation, The 2021 ICSA Applied Statistics Symposium, International Chinese Statistical Association (ICSA) <i>Optimal sampling designs for online estimation of streaming multi-dimensional time series</i> Virtual Conference	Sep 2021
Invited Presentation, 4th International Conference on Econometrics and Statistics (EcoSta 2021) <i>Optimal sampling designs for online estimation of streaming multi-dimensional time series</i> Hong Kong University of Science and Technology, Hong Kong, China	Jun 2021
Invited Presentation, KDD Group <i>Sampling for Streaming Data.</i> University of Central Florida, Orlando, FL, USA	Oct 2020
Department of Statistics & Data Science Colloquium Series <i>Large Scale Randomized Learning Guided by Physical Laws with Applications in Full Waveform Inversion.</i> University of Central Florida, Orlando, FL, USA	Sep 2020
Department of Statistics & Data Science Colloquium Series <i>Online Decentralized Leverage Score Sampling for Streaming Multidimensional Time Series.</i> University of Central Florida, Orlando, FL, USA	Sep 2019
Invited Seminar, Department of Statistics <i>Online Leverage-based Sequential Sampling for Streaming Time Series Data.</i> Rutgers University, New Brunswick, New Jersey, USA	Aug 2019
Invited Statistics Seminar, Department of Statistics <i>Online Leverage-based Sequential Sampling for Streaming Time Series Data.</i> University of Nebraska Lincoln, Lincoln, Nebraska, USA	Feb 2019
Invited DMS Colloquium, College of Sciences and Mathematics <i>Online Leverage-based Sequential Sampling for Streaming Time Series Data.</i> Auburn University, Auburn, Alabama, USA	Feb 2019
Invited Statistics Seminar, Department of Statistics <i>Online Leverage-based Sequential Sampling for Streaming Time Series Data.</i> Kansas State University, Manhattan, KS, USA	Jan 2019
Invited Research Presentation, Department of Statistics <i>Online Leverage-based Sequential Sampling for Streaming Time Series Data.</i> University of Central Florida, Orlando, FL, USA	Jan 2019
Invited Seminar, School of Mathematical Sciences <i>Online Leverage-based Sequential Sampling for Streaming Time Series Data.</i> Rochester Institute of Technology, Rochester, NY, USA	Jan 2019
Invited Presentation, Georgia Statistics Day 2019. <i>Online Decentralized Leverage Score Sampling for Streaming Multidimensional Time Series.</i> Georgia Institute of Technology, Atlanta, GA, USA	Oct 2019
Invited Presentation, JSM 2019 Joint Statistical Meetings - American Statistical Association. <i>Online Decentralized Leverage Score Sampling for Streaming Multidimensional Time Series.</i> Denver, CO, USA	Jul 2019
Invited Presentation, ICSA 2018 Applied Statistics Symposium. <i>Online sequential leveraging sampling method for streaming time series data.</i> New Brunswick, NJ, USA	Jun 2018
Poster, The University of Georgia/Clemson University Joint Seminar.	Mar 2018

- Sequential leveraging sampling method for streaming time series data.*
University of Georgia, Athens, GA, USA
- Poster, Georgia Statistics Day. Oct 2017
Sequential leveraging sampling method for streaming data.
Emory University, Atlanta, GA, USA
- Invited Presentation, the Center for Cyber-Physical Systems (CCPS), UGA. Mar 2017
Large scale randomized learning with applications in full waveform inversion.
Athens, GA, USA

**TEACHING
ACTIVITIES**

TEACHING AT UNIVERSITY OF CENTRAL FLORIDA

- STA 6704, Data Mining Methodology II (Enrollment 24) Spring 2023
- STA 6908, Independent Study (Enrollment 1) Spring 2023
- STA 6971, Thesis Research (Enrollment 1) Spring 2023
- STA 5703, Data Mining Methodology I (Enrollment 36) Fall 2022
- STA 6908, Independent Study (Enrollment 1) Fall 2022
- STA 7920, Statistical Colloquium (Enrollment 22) Fall 2022
- STA 6908, Independent Study (Enrollment 1) Spring 2022
- STA 4322, Statistical Theory II (Enrollment 52) Spring 2022
- STA 7920, Statistical Colloquium (Enrollment 22) Spring 2022
- STA 7239, Dimension Reduction in Regression (Enrollment 7) Fall 2021
- STA 5703, Data Mining Methodology I (Enrollment 42) Fall 2020
- STA 5104, Advanced Computer Processing of Statistical Data (Enrollment 28) Fall 2020
- STA 4322, Statistical Theory II (Enrollment 68) Spring 2020
- STA 4912, Directed Independent Research (Enrollment 1) Spring 2020
- STA 5703, Data Mining Methodology I (Enrollment 37) Fall 2019
- STA 4321, Statistical Theory I (Enrollment 59) Fall 2019

COURSE DEVELOPMENT AND REVISION

- Developed graduate-level STA 6371 Statistical Methodology for Data Science I
- Developed graduate-level STA 6372 Statistical Methodology for Data Science II
- Developed undergraduate-level ISC 4241 Data Science I for UCF Data Science Curriculum
- Revised syllabus of STA 6705 - Data Mining Methodology III.

QUALIFYING/CANDIDACY EXAM COMMITTEES

- Ph.D. Big Data Analytics Qualifying exam committee August 2020
- Ph.D. Big Data Analytics Qualifying exam committee January 2021
- Ph.D. Big Data Analytics Qualifying exam committee August 2021
- Statistics and Data Science (MS) comprehensive exam committee August 2021
- Statistics and Data Science (MS) comprehensive exam committee January 2022

GUEST LECTURE AT UNIVERSITY OF GEORGIA

Graduate Courses

- CSEE 8300, Principles of Cyber-Physical Systems Fall 2017
- STAT 6280, Multivariate Time Series Analysis Spring 2015

Undergraduate Courses

- FYOS 1001, First-Year Odyssey Seminars Fall 2017
- STAT 4280, Applied Time Series Analysis Spring 2016

DISSERTATION/THESIS/RESEARCH OR EDUCATION PROJECT ADVISING:

- MS Thesis Committee **Chair** Lulu Chen (Statistics) Fall 2022 - Present
- PhD Dissertation Committee **Chair** Yi Liu (Big Data Analytics) Spring 2023 - Present
- PhD Dissertation Committee Member Jongjin Kim (Big Data Analytics) Spring 2023 - Present
- PhD Dissertation Committee Member Christopher Schoborg (Big Data Analytics) Spring 2023 - Present
- PhD Dissertation Committee Member Wei Fan (Computer Science) Spring 2023 - Present
- PhD Dissertation Committee Member Ying Su (Big Data Analytics) Spring 2023 - Present
- PhD Dissertation Committee Member Yunshu Wang (Big Data Analytics) Fall 2019 - Summer 2020
- PhD Dissertation Committee Member Jianbin Zhu (Big Data Analytics) Fall 2019 - Present

- PhD Dissertation Committee Member Meixi Yu (Education) Fall 2020 - Fall 2022
- PhD Dissertation Committee Member Xiaoqing Wan (Psychology) Spring 2021 - Fall 2022
- PhD Dissertation Committee Member Dongjie Wang (Computer Science) Fall 2021 - Present
- PhD Dissertation Committee Member Jennifer Simmons (Nursing) Fall 2021 - Present
- PhD Dissertation Committee Member Camilla Escalera (Nursing) Fall 2021 - Present
- PhD Dissertation Committee Member Mahdi Mirhosseini (Big Data Analytics) Fall 2021 - Present
- PhD Dissertation Committee Member Amanda De La Serna (Nursing) Spring 2022 - Present
- PhD Dissertation Committee Member Ngoc Ty Nguyen (Big Data Analytics) Spring 2022 - Present
- PhD Dissertation Committee Member Ziyang Zhang (Mechanical Engineering) Spring 2022 - Fall 2022
- Undergraduate Independent Research: Yihang Li Spring 2020

**UNIVERSITY
ACTIVITIES**

- Department Committee – Colloquium Committee **co-Chair** Fall 2022 - Spring 2023
- Department Committee – Graduate Programs Fall 2022 - Spring 2023
- Department Committee – Graduate Curriculum Committee Fall 2022 - Spring 2023
- Department Committee – Assessment (Ph.D. Big Data Analytics) Fall 2022 - Spring 2023
- Department Committee – Colloquium Committee Fall 2021 - Spring 2022
- Department Committee – Graduate Programs Fall 2021 - Spring 2022
- Department Committee – Graduate Curriculum Committee Fall 2021 - Spring 2022
- Department Committee – Assessment (B.S. Data Science) Fall 2021 - Spring 2022
- Department Committee – Search Committee Spring 2021
- OUC/UCF - Meter Data Science Competition, UCF Liaison September 2020 - March 2021
- Department Committee – Promotion and Tenure Revision Committee Spring 2021
- Department Committee – Colloquium Committee **Chair** Fall 2020 - Spring 2021
- Department Committee – Assessment (Ph.D. Big Data Analytics) Fall 2020 - Spring 2021
- Department Committee – Assessment (M.S. Statistical Computing) Fall 2020 - Spring 2021
- Department Committee – Assessment (B.S. Statistics) Fall 2019 - Spring 2020
- Department Committee – Assessment (B.S. Actuarial Sciences) Fall 2019 - Spring 2020
- Department Committee – Assessment (Ph.D. Big Data Analytics) Fall 2019 - Spring 2020
- Department Committee – Assessment (M.S. Statistical Computing) Fall 2019 - Spring 2020

**PROFESSIONAL
ACTIVITIES
& AFFILIATIONS**

Editorial Board of Computational Genomics as Review Editor for *Frontiers in Genetics* June 2020 - Present

REVIEW FOR JOURNAL

- Journal of Graphical and Computational Statistics
- ACM Transactions on Sensor Networks
- Journal of Applied Statistics
- International Journal of Forecasting
- Journal of Systems Science
- Complexity
- Journal of the American Statistical Association
- Environmental and Ecological Statistics
- Journal of Statistical Theory and Practice
- Statistical Applications in Genetics and Molecular Biology
- Sankhya B
- PLOS One
- Journal of Intelligent Manufacturing
- Journal of Manufacturing Systems
- Sensors
- International Journal of Environmental Research and Public Health
- Computational Statistics and Data Analysis
- Applied Sciences
- Machines
- Journal of Systems Science & Complexity
- International Journal of Forecasting
- Entropy
- Measurement
- Frontiers Environmental Science
- Diagnostics

REVIEW FOR BOOK CHAPTER

“Handbook of Research on Applied Cybernetics and Systems Science,” *IGI Global*, 2017

ORGANIZATION MEMBERSHIP

American Statistical Association (ASA)	2017 – Present
International Chinese Statistical Association (ICSA)	2017 – Present
Institute of Electrical and Electronics Engineers (IEEE)	2018 – Present
IEEE Signal Processing Society	2018 – Present
The Computer Vision Foundation	2019 – Present
The New England Statistical Society	2021 – Present

**OUTREACH
ACTIVITIES**

- Volunteer, Georgia Statistics Day 2018
University of Georgia, Athens, GA, USA Oct 2018
- Invited Speaker, Lambert High School
Suwanee, GA, USA Feb 2018
- Invited Speaker, The Gwinnett School of Mathematics, Science, and Technology,
Lawrenceville, GA, USA Nov 2017
- Volunteer, Georgia Statistics Day 2015
University of Georgia, Athens, GA, USA Oct 2015

SKILLS

R, MATLAB, Python, C, \LaTeX , Julia, Linux bash, Mathematica, Stata, EViews.
Distributed computing & Parallel computing.