

QING LI

3031 Black Engineering Building,
2529 Union Drive,
Ames, IA 50011

Email: qlijane@iastate.edu
Phone: 1-515-294-4867

- Education** Virginia Tech, Blacksburg, VA
Ph.D., Statistics, 2015
Dissertation: Change-Point Detection in Recurrent-Event Context.
Advisor: Dr. Feng Guo, GPA: 3.9/4.0
- University of Rochester, Rochester, NY
M.S., Electrical and Computer Engineering, 2010
Thesis: Music Timing Analysis.
Advisor: Dr. Mark Bocko, GPA: 4.0/4.0
- Tsinghua University, Beijing, China
B.E., Information Electronics and Engineering, 2008
- Academic Appointments** Iowa State University, Dept. of Industrial and Manufacturing Systems Engineering (IMSE)
Assistant Professor, Fall 2018 – present
- University of Wisconsin-Madison, Dept. of Statistics
Visiting Assistant Professor, Jan 2016 – May 2018
- Research Interests** Quality assurance, Data analytics in additive manufacturing, Non-destructive evaluation, Bayesian analysis, Engineering and natural science applications of statistics, Machine learning, Medical data analytics, Recurrent-event change-point detection.
- Publications** (Student under my supervision in bold, Corresponding author *)
Peer-Reviewed Journals
1. **Jiang, Y. Q., Wang, S. D.,** Qin, H. T., Li, B. W., and **Li, Q.*.** Similarity evaluation of 3D surface topography measurements via Fourier transformation, *Measurement, in press*
 2. **Wang, S. D.,** Zhang, X., Zheng, Y., Li, B. W., Qin, H. T., and **Li, Q.*.** Similarity evaluation of 3D surface topography measurements, *Measurement Science and Technology*, 32:125003
 3. Zhang, X., Shen, W. J., Suresh, V., Hamilton, J., Yeh, L. H., Jiang, X. P., Zhang, Z., **Li, Q.,** Li, B. W., Rivero, I. V., and Qin, H. T. (2021). In-situ monitoring of direct energy deposition via structured light system and its application in remanufacturing, *The International Journal of Advanced Manufacturing Technology*, 116: 959–974.
 4. **Jiang, Y. Q., Li, Q.*,** Trevisan, G, Linhares, D., and MacKenzie, C. (2021). Investigating the relationship of porcine reproductive and respiratory syndrome virus RNA detection between adult/sow farm and wean-to-market age categories, *PLOS ONE*, 16:e0253429
 5. Zheng Y., **Wang, S. D., Li, Q.,** and Li, B. W. (2020). Fringe projection profilometry by conducting deep learning from its digital twin, *Optics Express*, 28(24): 36568-36583 (The first two authors contributed equally)

6. Allen, M. L., **Wang, S. D.**, Olson L. O., **Li, Q.**, and Miha Krofel (2020). Counting cats for conservation: seasonal estimates of leopard density and drivers of distribution in the Serengeti, *Biodiversity and Conservation*, 29: 3591-3608
7. **Li, Q.**, Guo, F., and Inyoung, K. (2020). A non-parametric Bayesian change-point detection method in the recurrent-event context, *Journal of Statistical Computation and Simulation*, 90: 2949-2968
8. Zhang, X., Zheng, Y., **Wang, S. D.**, **Li, Q.**, Li, B. W., and Qin, H. T. (2020). Correlation approaches for quality assurance of additive manufactured parts based on optical metrology, *Journal of Manufacturing Processes*, 53: 310-317
9. **Li, Q.***, **Yao, K. H.**, and **Zhang, X. Y.** (2020). A change-point detection and clustering method in the recurrent-event context, *Journal of Statistical Computation and Simulation*, 90 (6): 1131-1149
10. Zheng, Y., Zhang, X., **Wang, S. D.**, **Li, Q.**, Qin, H. T., and Li, B. W. (2020). Similarity evaluation of topography measurement results by different optical metrology technologies for additive manufactured parts, *Optics and Lasers in Engineering*, 126: 105920
11. Allen, M. L., Norton, A. S., Stauffer, G., Roberts, N., **Luo, Y. S.**, **Li, Q.**, MacFarland, D., and Van Deelen, T. R. (2018). A Bayesian state-space model using age-at-harvest data for estimating the population of black bears (*Ursus americanus*) in Wisconsin, *Scientific Reports*, 8 (1): 12440
12. **Li, Q.**, Guo, F., Inyoung, K., Klauer, S., and Simons-Morton, B. (2018). A Bayesian finite mixture change-points model for novice teenage driving risk, *Journal of Applied Statistics*, 45: 604-625
13. **Li, Q.**, Guo, F., Klauer, S., and Simons-Morton, B. (2017). Evaluation of risk change-point for novice teenage drivers, *Accident Analysis & Prevention*, 108: 139-146
14. Gibbons, R., Guo, F., Du, J. H., Medina, A., Terry, T., Lutkevich, P., and **Li, Q.** (2015). Approaches to adaptive lighting on roadways, *Transportation Research Record: Journal of the Transportation Research Board*, 2485: 26-32
15. Prussin, A. J., **Li, Q.**, Malla, R., Ross, S. D., and Schmale, D. G. (2014). Monitoring the long distance transport of fusarium graminearum from field-scale sources of inoculum, *Plant Disease*, 98 (4): 504-511
16. Guo, F., **Li, Q.**, and Rakha, H. (2012). Multi-state travel time reliability models with skewed component distributions, *Transportation Research Record: Journal of the Transportation Research Board*, 2315: 47-53

Manuscripts in Revision

17. **Li, Q.***, **Liu, L. J.**, **Li, T. Q.**, and **Yao, K. H.**. Bayesian change-points detection assuming power-law process in the recurrent-event context, *Communications in Statistics Part B: Simulation and Computation* (3rd round major revision)
18. **Wang, S. D.**, **Li, Q.**, and Zhang, W. L.. MD-manifold: A medical distance based manifold learning approach for heart failure readmission prediction, *Information Systems Research* (1st round major revision)
19. **Wang, S. D.**, **Jiang, Y. Q.**, **Li, Q.***, and Zhang, W. L. (2021). ICU mortality prediction: can we do better? A new model based on machine learning and stochastic signal analysis techniques, *Journal of the Association for Information Systems* (1st round major revision)
20. Lei, X., MacKenzie, C., and **Li, Q.**. Analysis and forecasting of mass shootings

using change point detection, *Risk Analysis (1st round major revision)*

21. **Wang, S. D.**, Rajabalizadeh, A., Javadi, M., Safaei, N., Talafidaryani, M., **Li, Q.**, Zhang, W. L., and Moqri, M.. Predictive performance analysis of the APACHE scoring system using the eICU collaborative research database, *Computer Methods and Programs in Biomedicine-Update (1st round major revision)*

Submitted Manuscripts

22. Bazargania, B., **Li, Q.**, and Smadia, O. (2020). Application of power analysis in pavement condition data, *Transportation Research Part B: Methodological*
23. Safaei, N., Seyedhouman, S., Talafidaryani, M., Masoud, A., **Wang, S. D.**, Moqri, M., **Li, Q.**, and Zhang, W. L. (2021), An interpretable machine learning approach for predicting ICU mortality using the eICU collaborative research database, *PLOS ONE*

Peer Reviewed Conference Proceedings (Full Papers) & Government Report

1. Gansemer-Topf, A., Jiang, S., Ruel, N., Kremer, O. G., Li, Q., Mort, R., and Cheng, D. (2021). Assessing the First Year of GAPS (Graduates for Advancing Professional Skills) Program, *The American Society for Engineering Education (ASEE) Virtual Conference*
2. Zhang, X., Shen, W. J., Suresh, V., Hamilton, J., Yeh, L. H., Jiang, X. P., Zhang, Z., **Li, Q.**, Li, B. W., Rivero, I. V., and Qin, H. T. (2021). In-situ monitoring of direct energy deposition via structured light system and its application in remanufacturing, *49th SME North American Manufacturing Research Conference (NAMRC 49)*, Cincinnati, USA
3. Shen, W. J., Zhang, X., Jiang, X. P., Yeh, L. H., Zhang, Z., **Li, Q.**, Li, B. W., and Qin, H. T. (2021). Surface extraction from micro-computed tomography data for surface metrology of additive manufacturing, *49th SME North American Manufacturing Research Conference (NAMRC 49)*, Ohio, USA
4. **Wang, S. D.**, **Li, Q.**, and Zhang, W. L. (2021). MD-manifold: A medical distance based manifold learning approach for heart failure readmission prediction, *Hawaii International Conference on System Sciences (HICSS), Virtual*
5. Jiang, S., Mort, R., Gansemer-Topf, A., **Li, Q.**, Ruel, N., and Kremer, O. G. (2020). Implementing professional skills training in STEM: A review of the literature, *The American Society for Engineering Education (ASEE) Virtual Conference*
6. Jiang, S., Mort, R., Gansemer-Topf, A., **Li, Q.**, Ruel, N., and Kremer, O. G. (2020). A community of practice approach to integrating professional skills training with graduate thesis research, *The American Society for Engineering Education (ASEE) Virtual Conference*
7. Rajabalizadeh, A., **Wang, S. D.**, Javadi, M., Safaei, N., Talafidaryani, M., Zhang, W. L., **Li, Q.**, and Moqri, M. (2020). In-depth evaluation of APACHE scoring system using eICU database, *International Conference on Information Systems (ICIS) (Virtual, Papers are peer reviewed with about a 28% acceptance rate.)*
8. Suresh, V., Zheng, Y., Zhang, X., **Wang, S. D.**, Qin, H. T., **Li, Q.**, and Li, B. W. (2020). Similarity evaluation of 3D topological measurement results using statistical methods, *Proceedings of SPIE 11397, Dimensional Optical Metrology and Inspection for Practical Applications IX*, 113970A

9. Zhang, X., Suresh, V., Zheng, Y., **Wang, S. D., Li, Q.**, Lyu, H., Li, B. W., and Qin, H. T. (2019). Surface roughness measurement of additive manufactured parts using focus variation microscopy and structured light system, *ASME 2019 International Manufacturing Science and Engineering Conference (MSEC)*
10. Gibbons, R., Guo, F., Du, J. H., Medina, A., Terry, T., Lutkevich, P., and **Li, Q.** (2015). Linking roadway lighting and crash safety, *Proceedings of the Transportation Research Board 94th Annual Meeting*. (The Transportation Research Board meeting is the most influential meeting on transportation research. Papers are peer reviewed with about a 50% acceptance rate.)
11. Gibbons, R., Guo, F., Medina, A., Terry, T., Du, J. H., Lutkevich, P., and **Li, Q.** (2014). Design criteria for adaptive roadway lighting, Report no. FHWA-HRT-14-051, Federal Highway Administration

Manuscripts in Preparation

- **Liu, L. J.**, Li, B. W., Qin, H. T., and **Li, Q.***, Quantify different sources of variations by conducting measurement studies based on the similarity scores of surface topography data in a process
- **Liu, L. J.**, Arterberry, B., and **Li, Q.**, Biclustering in the polysubstance use
- **Liu, L. J.**, **Wang, S. D.**, and **Li, Q.***, Hypothesis testing of change-points in recurrent-event context
- Zhang, W. L., **Wang, S. D.**, and **Li, Q.**, Sepsis management and prevention by natural language processing
- **Jiang, Y. Q.**, **Wang, S. D.**, Zhang, W. L., and **Li, Q.**, Feature extraction from irregular temporal data of vital signs in clinical records using Fourier transform

Grants

Federal

1. Co-PI, Innovations in Graduate Education (IGE): Learning communities of Graduates for Advancing Professional Skills (GAPS): Integrate professional skill training with thesis research (Award #: 1954946), National Science Foundation (NSF), Shan Jiang (PI), Gül E. Okudan Kremer, Ann M. Gansemer-Topf, Nigel F. Reuel (Co-PI), 07/2020 – 06/2023. (total \$499,978, my share 15%)

Internal

2. PI, Undergraduate Research Assistantships (URA): In-situ monitoring and prediction of melting pool temperature in Direct Energy Deposition via thermal imaging and novel data analytic tools, Industrial & Manufacturing Systems Engineering (IMSE) at ISU, 09/2021 – 05/2021. (total \$ 2,000)
3. Co-PI, Research Mini-Grants: An interpretable machine learning model for accurate ICU outcome prediction: A wavelet transformation and convolutional neural network based method, Debbie and Jerry Ivy College of Business at ISU, Wenli Zhang (PI), 01 – 6/2021. (total \$750)
4. Co-PI, Research Bootstrap Grants (RBG): Unravel high-dimensional, underutilized, and spare clinical records for accurate risk prediction, Debbie and Jerry Ivy College of Business at ISU, Wenli Zhang (PI), 04/2021 – 04/2022. (total \$6,000)
5. Co-PI, Research Mini-Grants: A fast-adjustable and interpretable intensive care units (ICU) outcome prediction model based on machine learning and stochastic signal analysis, Debbie and Jerry Ivy College of Business at ISU, Wenli Zhang

- (PI), 07 – 12/2020. (total \$750)
6. PI, Data Analytics Proposal: Detecting abnormalities in the swine disease reporting system, IMSE Exploratory Research Program (ERP), Cameron MacKenzie and Daniel Linhares (PI), 01 – 05/2020. (total \$16,000)
 7. PI, Undergraduate Research Assistantships (URA): 3D Surface topography consistency evaluation, IMSE URA, Iowa State University, Hantang Qin (PI), 09/2019 – 05/2020. (total \$ 4,000)
 8. PI, Data Analytics Proposal: Statistical approaches for firearms and toolmark identification – 3D surface topography comparison methods in forensics, IMSE ERP, Hantang Qin (PI), 08 – 12/2019. (total \$14,847)
 9. PI, Data Analytics Proposal: Asthma Management and Prevention Using Machine Learning, Natural Language Processing and Big Data, IMSE ERP, Wenli Zhang (PI), 05 – 08/2019. (total \$7,800)
 10. PI, Investigation of correlations behind point cloud data between structure light scanning system and depth from defocus system for surface roughness analysis, IMSE ERP, Hantang Qin (PI), 01 – 05/2019. (total \$14,847)
 11. PI, Engineering Problem Solving with R course for on-line delivery, Engineering-LAS Online Learning (ELO) course development grants, 01/2019 – 06/2020. (total \$9,000)

Honors & Awards

- M&D Best Track Paper **Award** of the Manufacturing and Design Division (an award which recognizes excellence in the IISE annual conference proceedings under the M&D Division), “In-situ monitoring of direct energy deposition via structured light system and its application in remanufacturing industry”, IISE, 2021
- Outstanding Poster Award, “Similarity evaluation of 3D surface topography measurements in additive manufacturing”, Wang, S.D.*, Zhang, X., Zhang, Y., Li, B.W., Qin, H.T., **Li, Q.**, ISU 7th Annual Graduate and Professional Student Conference, 2020
- Best Poster **Award** for the IMSE URA Project, “Defect recognition of additive manufactured parts based on CT reconstruction”, Tapia, L., Soo, Y.X., Jiang, L.K., Jiang, X.P., Qin, H.T., Zhang, Z., **Li, Q.**, The IMSE 8th Annual Student Research Symposium, 2020
- Taylor Technical Talent **Award** (an award which recognizes superior application papers), “Impact of Roadway Lighting on Crash Safety”, The Illuminating Engineering Society of North America (IES), 2015
- Second Freshmen Scholarship, Tsinghua University, 2004
- Ranked 5th out of 300,000 students, National College Entrance Examination, Gansu, China, 2004

Awards from advisees

- 1st Prize in Data Mining Cup, Shaodong Wang (against 148 teams from 28 countries at this international data mining competition on the subject of fraud detection), Berlin, 2019
- Graduate College Scholar **Award**, Yiqun Jiang, ISU, 2010
- Graduate College Scholar **Award**, Shaodong Wang, ISU, 2018

Teaching Experience

Iowa State University, IMSE
New Course Developed

- Introduction of Project Management for Thesis Research (MSE/IE/CBE 580X): A component of the NSF IGE grant (#1954946), co-developed with other PIs, Fall 2020
- Engineering Problem Solving Using R (IE 420/520X): physical and online, Spring 2019

Existing Course

- Introduction of Project Management for Thesis Research (MSE/IE/CBE 580X): A component of the NSF IGE grant (#1954946), co-taught with other PIs, Spring 2020 – present
- Engineering Problem Solving Using R (IE 420/520): Fall 2019 – present
- Statistical Quality Assurance (IE 361): Fall 2018 – present

University of Wisconsin-Madison, Dept. of Statistics

New Courses Developed

- Bayesian Computing (STAT 679): Spring 2018
- Applied Bayesian Methods (STAT 479): the overall evaluation was 4.55/5 (scores above 4.25 indicate excellent teaching), Fall 2016

Existing Courses

- Data Analysis with R (STAT 327): taught introductory, intermediate and advanced data analysis with R four times; supervised other instructors, 2017 – Spring 2018
- Introductory Applied Statistics for the Life Sciences (STAT 371): taught three sessions, Spring 2016 – 2017

Virginia Tech, Dept. of Statistics

Statistics for Engineering Applications (STAT 3704): taught five sessions, overall evaluation was 5.54/6, 2011 – 2015

Student Advising

Iowa State University

As Ph.D. Advisor

Lijie Liu (IMSE, expected Spring 2025)
Yiqun Jiang (IMSE, expected Spring 2024)
Shaodong Wang (IMSE, expected Spring 2023)

As Ph.D. Committee Member

Reyhaneh Bijari, Luning Bi, Chih-Yuan Chu, Hanisha Vemireddy, Lei Xue (IMSE, expected Spring 2022)
Samira Karimzadeh, Mohsen Shahhosseini (IMSE, Summer 2021)
Bahareh Bazargani, Sharif Gushgari, Ning Zhang (Dept. of Civil, Construction and Environmental Engineering (CCEE), 2020)
Zhengyang Hu (IMSE, Fall 2019)

As M.S. Committee Member

Li-Hsin Yeh (Mechanical Engineering, Fall 2021)
Wasama Abdullah (CCEE, Fall 2020)
Luning Bi (IMSE, Fall 2019)

IMSE Undergraduate Research Assistantships (URA)

Yajaira Navarro, 09/2021 – 05/2021
Hunter Barnhart, Vandi Hartanto, 09/2019 – 05/2020

Other undergraduate students

Shuolin Hu (Dept. of Statistics, Fall 2020)

University of Wisconsin-Madison, Dept. of Statistics

MS students: Yifan Mei, Shaodong Wang, Yanshi Luo, Kehui Yao, Xinyu Zhang, Lijie Liu, Tianqi Li

Presentations (Student under my supervision in bold, Corresponding author *)

Invited Talks

1. A non-parametric Bayesian change-point method for detecting driving risk changes, In *the Institute of Industrial and Systems Engineers (IISE) Annual Conference*, Virtual, May 2020
2. Similarity evaluation of 3D surface topography measurements in additive manufacturing, In *the IISE Annual Conference*, Virtual, May 2020
3. Similarity evaluation of 3D surface topography measurements in additive manufacturing, In *National Institute of Standards and Technology (NIST)*, Gaithersburg, MD, Feb 2020
4. Change-points detection in the recurrent-event context via Bayesian inference, In *Iowa State University, IMSE Dept. Seminar*, Sep 2018
5. Change-points detection in the recurrent-event context via Bayesian inference, In *Iowa State University, Statistics Dept. Seminar*, Sep 2018

Papers

1. **Liu, L. J.**, Li, B. W., Qin, H. T., and **Li, Q.***, Quantifying different sources of variations by conducting measurement studies based on the similarity scores of surface topography data in a process, In *the IISE Annual Conference*, Virtual, May 2021
2. **Jiang, Y. Q.**, **Wang, S. D.**, Qin, H. T., Li, B. W., and **Li, Q.***, Similarity evaluation of 3D surface topography measurements via Fourier transformation, In *the IISE Annual Conference*, Virtual, May 2021
3. **Wang, S.D.**, Zhang, X., Zheng, Y., Li, B.W., and Qin, H.T. **Li, Q.***, Similarity evaluation of 3D surface topography measurements in additive manufacturing, In *Joint Statistical Meetings (JSM)*, Virtual, Aug 2020
4. **Li, Q.**, Guo, F., Inyoung, K., A non-parametric Bayesian change-point method for detecting driving risk changes, In *Mid-Continent Transportation Research Symposium*, Ames, IA, Aug 2019
5. **Li, Q.**, Yao, K.H.*, and Zhang, X.Y.*, A change-point detection and clustering method in the recurrent-event context, In *JSM*, Denver, CO, Jul 2019
6. **Li, Q.**, Guo, F., Inyoung, K., A non-parametric Bayesian change-point method for detecting driving risk changes, In *JSM*, Baltimore, MD, Aug 2017
7. **Li, Q.**, Guo, F., Inyoung, K., Klauer, S., and Simons-Morton, B., Change-points detection in driving risk by hierarchical Bayesian finite mixture model, In *JSM*, Seattle, WA, Aug 2015
8. **Li, Q.**, Guo, F., Klauer, S., and Simons-Morton, B., Detecting the change-point of driving risk for novice teenage drivers in recurrent-event context, In *JSM*, Boston, MA, Aug 2014

Posters

1. Tapia, L., Soo, Y.X., Jiang, L.K., Jiang, X.P., Qin, H.T., Zhang, Z., **Li, Q.**, Defect recognition of additive manufactured parts based on CT reconstruction, In *IMSE 8th Annual Student Research Symposium (Virtual)*, Ames, IA, 2020 (Best poster award for the IMSE URA project)

2. **Wang, S.D.**, Zhang, X., Zhang, Y., Li, B.W., Qin, H.T., **Li, Q.***, Similarity evaluation of 3D surface topography measurements in additive manufacturing, In *ISU 7th Annual Graduate and Professional Student Conference (Virtual)*, Ames, IA, 2020 (Outstanding poster award)
3. Zhang, X., Suresh, V., Zhang, Y., **Wang, S.D.**, **Li, Q.**, Lyu, H., Li, B.W., Qin, H.T., Surface roughness measurement of additive manufactured parts using focus variation microscopy and structured light system, In *Iowa State Research Day, Undergraduate and Graduate Research Symposium of IMSE, and The 2nd Midwest Statistical Machine Learning Colloquium*, Ames, IA, 2019; In *ASME 2019 International Manufacturing Science and Engineering Conference (MSEC 2019)*, Erie, PA, 2019
4. **Li, Q.***, **Yao, K.H.**, and **Zhang, X.Y.**, A change-point detection and clustering method in the recurrent-event context, In *The First Midwest Statistical Machine Learning Colloquium*, Ames, IA, May 201
5. **Li, Q.**, Guo, F., Inyoung, K., A non-parametric Bayesian change-point detection method in the recurrent-event context, In *Conference on Predictive Inference and Its Applications*, Ames, IA, May 2018

Professional Service

- Math senior honors thesis committee member, Sweet Briar College (A women's college), 2021
- Proposal review panelist
 - ◆ Swiss National Science Foundation (SNSF) (Switzerland's largest research funding organization), 2021
 - ◆ NSF ENG/CMMI, 2020, Alexandria, VA
- Invited session chair
 - ◆ Statistical machine learning in engineering applications, IISE Annual Conference, Virtual, Nov 2020
 - ◆ Data analytics and statistical learning with engineering & healthcare applications, IISE Annual Conference, Virtual, Nov 2020
- Session chair:
 - ◆ JSM, Virtual, Aug 2020;
 - ◆ The 1st Midwest Statistical Machine Learning Colloquium, May 2018, Ames, IA
 - ◆ The 2nd Midwest Statistical Machine Learning Colloquium, May 2019, Ames
- Preproposal Review Committee, Iowa State University internal submission for the NSF EPSCoR, Nov 2019
- Journal referee:
 - ◆ Accident Analysis & Prevention;
 - ◆ Chemometrics and Intelligent Laboratory Systems;
 - ◆ Computer and Information Science;
 - ◆ Environmental and Ecological Statistics;
 - ◆ Finance Big Data: Management, Analysis, and Applications, A Special Issue of International Journal of Electronic Commerce;
 - ◆ International Journal of Psychology and Counselling;
 - ◆ International Journal of Sociology and Anthropology;
 - ◆ Journal of Applied Statistics;

- ◆ Journal of Statistical Computation and Simulation;
- ◆ Journal of Quality Technology;
- ◆ Measurement;
- ◆ Precision Engineering;
- ◆ Sankhyā: The Indian Journal of Statistics, Series B;
- ◆ Stat;
- ◆ Statistica Sinica;
- ◆ Statistical Theory and Related Fields;
- ◆ Technometrics;
- ◆ Transportmetrica A: Transport Science;
- ◆ Transportation Research Record: Journal of the Transportation Research Board
- Conference referee:
 - ◆ 48th, and 49th SME North American Manufacturing Research Conference
 - ◆ IISE Annual Conference 2020
 - ◆ American Society for Engineering Education (ASEE) North Midwest Section Annual Conference 2020

Service

Iowa State University, Dept. of IMSE

- Department chair search committee, Aug 2021 – May 2022
- Operational research/data analytics resource management committee, Aug 2020 – present
- Diversity and inclusion committee, Jan 2019 – present
- Teaching lab coordinator search committee, May 2019

University of Wisconsin-Madison, Dept. of Statistics

Undergraduate committee, Aug 2017 – May 2018

Research Collaboration

- Brooke Arterberry, Department of Psychology, ISU, Biclustering of polysubstance use disorder, Mar 2021 – present
- Daniel Linhares, Veterinary Diagnostic and Production Animal Medicine, ISU College of Veterinary Medicine; Cameron Mackenzie, IMSE, ISU, Porcine disease abnormalities detection in the US swine industry, Oct 2019 – present
- Wenli Zhang, Dept. of Information Systems, ISU, Medical data analytics using machine learning, natural language processing and statistics, Sep 2018 – present
- Hantang Qin, IMSE, ISU; Beiwen Li, Dept. of Mechanical Engineering, ISU, Quality assurance and data analytics in additive manufacturing, Aug 2018 – present

Consulting Experience

Virginia Tech, Dept. of Statistics

- **Lead** collaborator of Laboratory for Interdisciplinary Statistical Analysis (LISA): effectively supervised 24 collaborative projects to assist researchers from diverse research fields, designed the experiments, proposed appropriate statistical methods, performed analysis, and wrote manuscripts; conducted walk-in consulting and taught short courses on statistics; achieved co-authorship out of one project, 2012, Summer 2014
- Associate collaborator of LISA: worked on teams with the LISA lead collaborators on 17 projects, 2011, Spring 2012

Affiliations

- Institute of Industrial and Systems Engineers (IISE), 2019 – present
- International Chinese Statistical Association (ICSA), 2017 – present
- International Christian Statisticians (ICS), 2014 – present
- American Statistical Association (ASA), 2014 – present
- Mu Sigma Rho (National Statistical Honor Society), 2012 – present
- Secretary, Graduate Organizing Group, University of Rochester, 2008 – 2009

Skills

- Programming: R, SAS, MatLab, JMP, Minitab, C/C++.
- Applications: LaTeX, Linux, GitHub.