

Jaesung Lee

Wm Michael Barnes '64 Department of Industrial and Systems Engineering,
Texas A&M University, 3131 TAMU, College Station, TX 77843-3131

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PROFESSIONAL EXPERIENCE

Assistant Professor , Industrial and Systems Engineering, Texas A&M University	2022–present
Senior Consultant , Gurobikorea, Seoul, South Korea	2017
Research Engineer/Software Developer , Diquest Inc., Seoul, South Korea	2013 – 2016

EDUCATION

Ph.D. Industrial and Systems Engineering, University of Wisconsin–Madison	2022
M.S. Statistics, University of Wisconsin–Madison	2020
M.S. Management Engineering, Korea Advanced Institute of Science and Technology (KAIST)	2013
B.S. Industrial Systems and Information Engineering, Korea University	2011
B.E. Financial Engineering (Interdisciplinary Major), Korea University	2011

RESEARCH INTERESTS

- Domain-informed statistical machine learning and uncertainty quantification
- Bayesian modeling, uncertainty quantification, and data-driven decision-making
- Digital twins and predictive analytics for advanced manufacturing and healthcare

PUBLICATIONS

Journal Papers

My advisees are underlined; an asterisk (*) denotes my role as corresponding author.

Published

1. S. Aghaee Dabaghan Fard, M. Kim, A. Deep, and **J. Lee***. “Bayesian Joint Model of Multi-Sensor and Failure Event Data for Multi-Mode Failure Prediction,” *Technometrics*, pp. 1–15, 2026, <https://doi.org/10.1080/00401706.2026.2653564>.
 - *Technometrics* is a top journal in science and engineering statistics, with an acceptance rate of approximately 11%.
 - Finalist for the “QCRE Student Paper Competition” at the 2025 IISE Annual Conference & Expo.
 - Invited to present in the *Technometrics* Journal Session at the 2026 Quality and Productivity Research Conference.
2. H. Tian, A. Hanchate, R. Palanna, **J. Lee**, and S. Bukkapatnam. “Explainable Sequential Survival Modeling for Downtime Prognostics in Manufacturing Systems,” *Manufacturing Letters*, vol. 49, Supplement, pp. 1286–1297, 2026, <https://doi.org/10.1016/j.mfglet.2026.08.035>.
3. K. Fu, Z. Li, L. Zhao, A. Deep, **J. Lee**, N. Asadi, and M. Kim. “Examining and mitigating underspecification in neural network-based wafer defect pattern classification,” *Journal of Intelligent Manufacturing*, 2026, <https://doi.org/10.1007/s10845-026-02890-8>.

4. Z. Li, A. Deep, **J. Lee**, and M. Kim. “Manifold-informed Meta-Learning for Out-of-Distribution Detection and Classification in Small-Scale Industrial Datasets,” *Journal of Intelligent Manufacturing*, 2026, <https://doi.org/10.1007/s10845-026-02873-9>.
5. **J. Lee***, T. Srikitrungruang, and S. Jahani. “Knowledge-Guided Reinforcement Learning for Preventive Maintenance Planning in Economically Dependent Multi-Component Systems,” *IIE Transactions*, vol. 58, no. 11, pp. 1352–1369, 2026, <https://doi.org/10.1080/24725854.2025.2610967>.
 - Finalist for “2025 QSR Best Refereed Paper Competition” at the 2025 INFORMS Annual Conference.
6. T. Srikitrungruang, S. Aghaee Dabaghan Fard, M. Lemon, **J. Lee***, and Y. Zhou. “Robust Physics-Informed Neural Network Approach for Estimating Heterogeneous Elastic Properties from Noisy Displacement Data,” *Advanced Science*, vol. 12, no. 48, e08445, 2025, <https://doi.org/10.1002/advs.202508445>.
 - *Advanced Science* is a premier open access journal with high interdisciplinary impact (IF > 14).
7. Z. Li, A. Deep, **J. Lee**, and M. Kim. “A New View of Neural Network-Based Health Index: Connecting Prediction and Operational Decision-Making to Address Underspecification,” *IEEE Transactions on Automation Science and Engineering*, vol. 22, pp. 23501–23512, 2025, <https://doi.org/10.1109/TASE.2025.3627844>.
8. **J. Lee**, S. Zhou, and J. Chen. “Robust Parameter Design on Dual Stochastic Response Models With Constrained Bayesian Optimization,” *IEEE Transactions on Automation Science and Engineering*, vol. 21, no. 2, pp. 2039–2050, 2024, <https://doi.org/10.1109/TASE.2023.3251973>.
9. X. Sui, S. Rangnekar, **J. Lee**, S. Liu, J. Downing, L. Chaney, X. Yan, H. Jang, H. Pu, X. Shi, S. Zhou, M. Hersam, and J. Chen. “Fully Inkjet-Printed, 2D Materials-Based Field-Effect Transistor for Water Sensing,” *Advanced Materials Technologies*, vol. 8, no. 22, p. 2301288, 2023 (Back Cover), <https://doi.org/10.1002/admt.202301288>.
 - Recognized as a top-viewed article of 2023.
10. A. Rahman, T. Rahman, Z. Pei, C. Ufodike, **J. Lee**, and A. Elwany. “Additive Manufacturing Using Agriculturally Derived Biowastes: A Systematic Literature Review,” *Bioengineering*, vol. 10, no. 7, p. 845, 2023, <https://doi.org/10.3390/bioengineering10070845>.
11. C. Huang, **J. Lee**, Y. Zhang, S. Zhou, and J. Tang. “Mixed-Input Bayesian Optimization Method for Structural Damage Diagnosis,” *IEEE Transactions on Reliability*, vol. 72, no. 2, pp. 678–691, 2023, <https://doi.org/10.1109/TR.2022.3179602>.
12. **J. Lee**, C. Wang, X. Sui, S. Zhou, and J. Chen. “Landmark-embedded Gaussian process with applications for functional data modeling,” *IIE Transactions*, vol. 54, no. 11, pp. 1033–1046, 2022, <https://doi.org/10.1080/24725854.2021.1974129>.
 - Featured in the October 2022 issue of ISE Magazine.
 - Awarded as Best Paper in the 2023 IIE Transactions Focus Issue on Design and Manufacturing
13. **J. Lee**, S. Zhou, and J. Chen. “Statistical Modeling and Analysis of k-Layer Coverage of Two-Dimensional Materials in Inkjet Printing Processes,” *Technometrics*, vol. 63, no. 3, pp. 410–420, 2021, <https://doi.org/10.1080/00401706.2020.1805020>.
14. **J. Lee**, J. Son, S. Zhou, and Y. Chen. “Variation source identification in manufacturing processes using Bayesian approach with sparse variance components prior,” *IEEE Transactions on Automation Science and Engineering*, vol. 17, no. 3, pp. 1469–1485, 2020, <https://doi.org/10.1109/TASE.2019.2959605>.

15. Y. Wang, **J. Lee**, and I. Choi. “Indexing by Latent Dirichlet Allocation and an Ensemble Model,” *Journal of the Association for Information Science and Technology*, vol. 67, no. 7, pp. 1736–1750, 2016, <https://doi.org/10.1002/asi.23444>.

Under Review/Revision

1. T. Srikitrungruang and **J. Lee**^{*}, “Probabilistic Physics-Informed Neural Networks for Estimating Heterogeneous Elastic Properties from Low-Resolution and Noisy Displacement Data,” arXiv preprint: <https://doi.org/10.48550/arXiv.2607.14563>. Major revision at *Technometrics*.
 - Finalist for the 2026 INFORMS QSR Best Student Paper Competition (Ph.D. advisee: Tatthapong Srikitrungruang).
2. S. Aghaee Dabaghan Fard and **J. Lee**^{*}, “Scalable Bayesian Deep Kernel Networks via Ensemble-Induced Finite Function Spaces.” Under review.
3. A. Salehiyan, **J. Lee**, M. Kim, and A. Deep, “A Scalable POMDP-based Framework for Real-Time Maintenance Planning using Multiple Sensor Signals,” TechRxiv preprint: <https://doi.org/10.36227/techrxiv.173337778.83986484/v1>. Under review.
4. S. Aghaee Dabaghan Fard, M. Kim, A. Deep, and **J. Lee**^{*}, “BEIFSurv: Bayesian Ensemble-Induced Finite Function-Space Survival Model for Multi-Sensor Data and Multi-Mode Failure Prediction.” Under review.

Working Papers

S. Aghaee Dabaghan Fard and **J. Lee**^{*}, “Physics-Informed Heterogeneous Bayesian Last Layer Neural Network”,

T. Srikitrungruang and **J. Lee**^{*}, “Bayesian Physics-Informed Probabilistic Neural Network with Variance-Driven Weighting and Spline Guidance for Inverse Heterogeneous Elasticity Estimation from Low-Resolution and Noisy Data”.

Conference Proceedings

1. **J. Lee**, S. Zhou, and J. Chen. “Sequential Robust Parameter Design With Sample Size Selection”. In: *International Manufacturing Science and Engineering Conference*. Vol. 85819. International Manufacturing Science and Engineering Conference. American Society of Mechanical Engineers. 2022, V002T06A024. <https://doi.org/10.1115/MSEC2022-85690>
2. **J. Lee**, C. Wang, S. Zhou, and J. Chen. “Spatial distribution quantification and control of ink flakes in reduced graphene oxide FET inkjet printing,” *Procedia Manufacturing*, vol. 34, pp. 19–25, 2019, <https://doi.org/10.1016/j.promfg.2019.06.109>.
3. **J. Lee**, D. Kim, K. Kim, and H. Jung, “Efficient compact join algorithm for acyclic conjunctive SPARQL,” *ITMSOC Transactions on Information Technology Management*, vol. 1, no. 1, pp. 1–8, 2016.
4. I. Choi and **J. Lee**, “Document indexing by latent Dirichlet allocation,” in *proceedings of the 2010 international conference on data mining*, Las Vegas NV, USA, Jul. 12-15, 2010, pp. 409–414, 2010.

RESEARCH FUNDING

Awarded funding: \$3.08M total (\$2.96M federal); \$1.94M in federal PI funding.

- **PI**, National Institutes of Health (NIH)/NIAMS
Total: \$1,027,705
R01, “SCH: Digital Twin Systems for Personalized Prediction of Osteoporotic Spine Fractures Using Physics-Informed Machine Learning,” 09/2026–08/2030.
(Co-Investigators: Jangho Park, Yuxiao Zhou)

- **PI**, National Science Foundation (NSF)
Total: \$513,000
“Trustworthy Digital Twins for Patient-Specific Evaluation of Implant Systems,” FDT-BioTech, 06/2027–05/2030.
(Co-PIs: Yuxiao Zhou, Andrew Read-fuller)
- **PI**, National Institutes of Health (NIH)/NIDCR
Total: \$394,886
R21, “Toward Personalized Dental Surgery Planning: Dental Bone Stiffness Discovery and Strain Prediction Using Physics-Informed Machine Learning,” 08/2026–07/2028.
(M-PI: Yuxiao Zhou; Co-Investigator: Andrew Read-fuller)
- **Senior Personnel**, National Science Foundation (NSF)
Total: \$20,000
“Conference: Collaborative Research at the Intersection of Statistics and Engineering: High-Dimensional Data Analysis,” DMS, 01/2026–12/2026.
(PI: Ardavan Yazdanbakhsh)
- **Co-PI**, Crider Foods
Total: \$101,628; **My share:** \$36,390
“Cannery 4.0 Phase 2,” 02/2025–11/2025.
(PI: Satish Bukkapatnam)
 - **My role:** Led the project’s failure-prediction analytics, developing machine-learning methods that convert process sensor streams into early warnings for proactive maintenance.
- **Co-PI**, LIFT / U.S. Department of War
Total: \$1,000,000; **TAMU portion:** \$283,748; **My share:** \$93,237
“VITAL: Virtual Qualification and Certification of an Advanced Structural Material Leveraging Advanced Data-Driven Approaches,” AMC 2024, 09/2025–09/2026.
(PI: Mohsen Taheri Andani; Lead: EOS North America)
 - **My role:** Led the project’s data-driven virtual qualification and certification thrust; Mohsen Taheri Andani and industry partners led additive manufacturing and mechanical testing.
 - **Featured article:** LIFT ([link](#))
- **PI**, Texas A&M Institute of Data Science
Total: \$20,000
“Toward Smart Orthopedic Surgery Planning Using Physics-Informed Machine Learning,” SPAICD, 01/2025–12/2026.
(Collaborator: Yuxiao Zhou)
 - **Featured articles:** Dental Tribune ([link](#)), Texas A&M Engineering ([link](#))

HONORS

Awards

- QSR Best Student Paper Competition Finalist (Ph.D. Advisee: Tatthapong Srikitrungruang), INFORMS Annual Meeting, 2026
- 2025–26 Montague–Center for Teaching Excellence (CTE) Scholar, Texas A&M University, 2025
 - * University-wide recognition for excellence and innovation in undergraduate teaching (includes a \$6,500 teaching grant)
- QSR Best Refereed Paper Competition Finalist, INFORMS Annual Meeting, 2025
- QCRE Student Paper Competition Finalist (Ph.D. Advisee: Sina Aghaee Dabaghan Fard), IISE Annual Conference & Expo, 2025

- IISE Transactions Best Paper Award, IISE, 2024
- Exceptional performance warrant on M.S. exam (statistical consulting exam involving interviewing two clients, writing reports, and orally defending the reports to four faculty committees), Department of Statistics, UW–Madison, 2020
- Best Paper Award for “Efficient Compact Join Algorithm for Acyclic Conjunctive SPARQL,” Management and Innovation Technology International Conference, 2015
- Best Master’s Thesis Award for “A study on stock price manipulation through spreading false rumor,” KAIST, 2013

Research Recognitions

- Recognized as a top-viewed article of 2023 by Advanced Materials Technologies for “Fully inkjet-printed, 2D materials-based field-effect transistor for water sensing.”
- Featured Article in ISE Magazine, IISE, 2022

PRESENTATIONS

Invited Presentations

- “Robust Inference of Unseen Heterogeneous Physical Properties from Imperfect Data: A Unified Probabilistic Physics-Informed Machine Learning Framework,” INFORMS QSR Webinar Series, Virtual, October 21, 2026 (scheduled)
- “Bayesian Joint Model of Multi-Sensor and Failure Event Data for Multi-Mode Failure Prediction”, Quality and Productivity Research Conference (QPRC), Santa Fe, New Mexico, June, 2026
 - * (**Invited *Technometrics* journal session**)
- “Domain-Informed Reinforcement Learning for Multi-Component Preventive Maintenance Planning under Economic Dependence”, INFORMS Annual Meeting, Atlanta, Georgia, October, 2025
 - * (**Invited talk for the QSR Best Refereed Paper Competition**)
- “Toward Smart Reliability Management: Integrating Domain Knowledge with Data-Driven Approaches for Prognostics, Diagnostics, and Decision-Making Using Sensor Data”, General Motors, Virtual, July, 2025
- “Domain-informed data-driven methods for prognostics, diagnostics, and decision-making in complex Engineering systems” Virginia Tech, Blacksburg, VA, January, 2025
- “Data Analytics in Manufacturing: Data Collection to Decision Making,” Virtual Webinar, The Florida Advanced Technological Education Center (FLATE), Florida, October, 2024
- “Toward Smart Reliability Management: Failure Prediction and Predictive Maintenance Leveraging Condition-Monitoring Signals in Multi-Sensor Systems,” Zorich Reliability Workshop, Texas A&M University, September, 2024
- “Data Science Approaches for Modeling and Design with Application in Advanced Manufacturing,” Korea University, South Korea, May 2024
- “Landmark-embedded Gaussian process with applications for functional data modeling,” IISE Annual Conference and Expo, Montreal, Quebec, Canada, May 2024
 - * (**Invited talk as a recipient of the IISE Transactions Best Paper**)
- “Statistical Modeling of Random Shifting and Shapes in Functional Data and Uncertainty Quantification via Landmark-Embedded Hierarchical Gaussian Processes,” Data-Driven Model Reduction, Scientific Frontiers, and Applications Workshop, Texas A&M University, November 2023

- “Statistical Calibration Based on Functional Data with Amplitude and Phase Variations,” TAMIDS - Uncertainty Quantification Workshop, Texas A&M University, December 2022
- “Data Science Approaches for Modeling and Design with Application in Advanced Manufacturing,” Texas A&M University, March 2022
- “Statistical Modeling and Analysis for Designing and Controlling Advanced Manufacturing,” University of Calgary, Virtual, March 2022
- “Data-driven Modeling, Analysis, Design, and Control in Advanced Manufacturing,” University of Arkansas, January 2022
- “Data-driven Modeling, Analysis, Design, and Control in Advanced Manufacturing,” Korea Advanced Institute of Science and Technology (KAIST), Virtual, October 2021

Conference Presentations

- “Domain-Informed Reinforcement Learning for Multi-Component Preventive Maintenance Planning under Economic Dependence,” INFORMS Annual Meeting, Seattle, WA, USA, October 2024
- “Deep Reinforcement Learning for Maintenance Planning Under Economic Dependency,” INFORMS Annual Meeting, Indianapolis, IN, USA, October 2022
- “Sequential Robust Parameter Design With Sample Size Selection”, ASME 2022 17th International Manufacturing Science and Engineering Conference, West Lafayette, Indiana, USA, June 2022
- “Constrained Bayesian Optimization on the Robust Parameter Design of Stochastic Functions,” INFORMS Annual Meeting, Virtual, October 2021
- “Landmark-embedded Hierarchical Gaussian Process With Applications For Functional Data Calibration,” INFORMS Annual Meeting, Virtual, November 2020
- “Statistical Modeling and Analysis of k-Layer Coverage of Two-Dimensional Materials in Inkjet Printing Processes,” INFORMS Annual Meeting, Seattle, WA, USA, October 2019
- “Spatial distribution quantification and control of ink flakes in reduced graphene oxide FET inkjet printing,” 47th annual conference on manufacturing research (NAMRC 47), Erie, PA, USA, June 2019
- “Fault Diagnosis in Multistage Manufacturing Processes Based on Bayesian Linear Random Effects Model with Sparse Variance Components Prior,” INFORMS Annual Meeting, Phoenix, AZ, USA, November 2018
- “Efficient Compact Join Algorithm for Acyclic Conjunctive SPARQL,” Management and Innovation Technology International Conference (MITiCON), Bangkok, Thailand, 2015

TEACHING EXPERIENCE

Texas A&M University

College Station, TX

Instructor

- DAEN 210: Uncertainty Modeling (Spring 2024, Spring 2025, Spring 2026)
- ISEN 350: Quality Engineering (Fall 2022, Fall 2023)
- ISEN 614: Advanced Quality Control (Spring 2023, Spring 2024, Spring 2025, Fall 2026)

Course Development

- DAEN 210 Uncertainty Modeling (Summer 2023)

University of Wisconsin–Madison

Madison, WI

Teaching Assistant

- ISyE 510 Facility Planning (Student Evaluation Score: 4.45/5.0) (Fall 2019)

ADVISING

Ph.D. Advising

- Tatthapong Srikitrungruang, Spring 2023–present (expected Summer 2027)
 - * Finalist for the 2026 QSR Best Student Paper Competition at the INFORMS Annual Meeting.
 - * Finalist for the 2025 QSR Best Refereed Paper Competition at the INFORMS Annual Meeting.
 - * Second place in the ISEN Best Presentation Competition, organized by the INFORMS Student Chapter.
- Sina Aghaee Dabaghan Fard, Fall 2023–present (expected Summer 2028)
 - * Finalist for the QCRE Student Paper Competition at the 2025 IISE Annual Conference & Expo.
- Tanvir Ahmed, Fall 2025–present

M.S. Advising

- Noor S. Obeidat, Fall 2024–Fall 2025
 - * Outstanding Master of Science Thesis Student Award, 2025.

Advising for Research Experiences for Undergraduates

- Andres Sanchez (Fall 2026–present; DAEN 491, research credit)
- Gabriel Gonzalez (Spring 2025; admitted to an M.S. program at Harvard University)
- Matthew Lemon (Spring 2025)
- Anna Hartman (Summer 2023)

Undergraduate Senior Capstone Teams Supervised

- Jonathan Harris, Tobin Reynolds and Andreas Sanchez (Sponsor: Navy) (Fall 2026)
- Raymond Gwilliam, Joanna Lin, Gustavo Pinel, Matias Rosenberg Callejas, Vivian Sumbera (Company: Dessert Holdings) (Spring 2026)
- Joseph Zhang, Madeline Claire Fournier, Fahn Saovatharnpong, Skylee McLoud (Company: Merlion) (Spring 2026)
- Jackson T Conant, Callista M D Grass, Ewan Mackie, Michael Tyrrell, Ngan Thanh Pham, Pranav Kulkarni (Company: Applied Materials) (Fall 2024)
- Dave Garrett Mitchell, Margo Angelica, Aidan Steuart, Farrah J Ferguson (Company: Samsung) (Fall 2024)
- Simran Sethi, Julie Victoria Krbashyan, Devon Michael Ramlal, Daniel Levi (Company: Christus Health, St. Patrick's Location) (Spring 2023)
- Aarushi Mudavangatil, Christian Perez, Peter Peng, Isabella Arpero-Bustillos, Saron Bahlbi (Company: Christus Health) (Spring 2023)
- Alexis Zarate, Brayden Mellick, Coleson Mooney, Damaris Cruz Hernandez (Company: Rochester Sensors) (Spring 2023)
- Jennifer Han, Santiago Ruffo, Cole Oliphant, Audrey Jiang (Company: Christus Health) (Spring 2023)
- Jessee Stephens, Aarushi K Agarwal, Brian Nguyen, Brandon Capilla Gaspariano (Company: P&G) (Fall 2022)

SERVICE

Professional Service

- Committee Member, *IISE Transactions* (Design & Manufacturing Focused Issue) 2027 Best Paper Award Committee, 2026
- Organizing Committee Member and Senior Personnel, Workshop on Collaborative Research at the Intersection of Statistics and Engineering (CRSE): High-Dimensional Data Analysis, Wharton School, University of Pennsylvania, Philadelphia, PA, August 11–13, 2026
- Panelist, “Starting Out in Academia” panel in “Doctoral Colloquium”, IISE Doctoral Colloquium, IISE Conference, Arlington, TX, 2026
- Associate Editor, *Journal of Intelligent Manufacturing*, 2024-
- Director of the Korean Research Association for the Business Education, 2023-Present
- Editorial Board Member of the Korean Research Association for the Business Education, 2023-2025

Institutional Service at Texas A&M University

- Data Science Focus Area Convener (Spring 2026-), Industrial & Systems Engineering Department, Texas A&M University
- College of Engineering AI/HPC (High-Performance Computing) Working Group (Fall 2025-), Texas A&M University
- ISEN Data Engineering Program Curriculum Committee (Fall 2022-), Texas A&M University
- Member, Faculty Search Committee (Fall 2026), Texas A&M University
- ETAM (Entry to a Major) Review Round 1 (Summer 2026), Industrial & Systems Engineering Department, Texas A&M University
- ETAM (Entry to a Major) Review Round 1 (Summer 2025), Industrial & Systems Engineering Department, Texas A&M University
- Member, ISEN Graduate Affairs Committee (Fall 2023- Spring 2026), Industrial & Systems Engineering Department, Texas A&M University
- Member, ISEN Undergraduate Affairs Committee (Fall 2022- Spring 2023), Industrial & Systems Engineering Department, Texas A&M University
- Judge, ISEN Oral Presentation Competition, Industrial & Systems Engineering Department, Texas A&M University, Oct, 2023

Proposal Panel and Ad Hoc Review

- Ad hoc Reviewer, Directorate for Technology, Innovation and Partnerships, NSF, Mar, 2025
- Panel, Directorate for Engineering and others, NSF, 2024
- Panel, Directorate for Technology, Innovation and Partnerships, NSF, 2023

Reviewer/Judge

- Reviewer for the ICQSR 2026 Best Paper Competition, ICQSR, 2026
- Reviewer for the “Full Papers for the IISE QCRE Track”, IISE Annual Conference & Expo 2026

- Reviewer for the "IISE-QCRE Best Track Paper Competition", IISE Annual Conference & Expo 2026, May, 2026
- Reviewer for the "QCRE Golomski Award 2025", IISE Quality Control And Reliability Engineering (QCRE) Division, Aug, 2025
- Reviewer for the "INFORMS QSR Best Student Paper Competition", INFORMS Annual Meeting 2025
- Reviewer for the "IISE-QCRE Best Track Paper Competition", IISE Annual Conference & Expo 2025
- Reviewer for the "2024 INFORMS Workshop on Data Mining and Decision Analytics Workshop Best Paper Competition", INFORMS Annual Meeting 2024
- Reviewer for the "2024 INFORMS Data Mining Best Paper Competition", INFORMS Annual Meeting 2024
- Reviewer for the "IISE-QCRE Best Track Paper Competition", IISE Annual Conference & Expo 2024
- Reviewer for the "IISE-DAIS Best Track Paper Competition", IISE Annual Conference & Expo 2024
- Judge for the "QSR Best Student Poster Competition", INFORMS Annual Meeting 2023, Phoenix, AZ, USA, Oct, 2023
- Judge for the "INFORMS Annual Meeting Poster Sessions", INFORMS Annual Meeting 2023, Phoenix, AZ, USA, Oct, 2023
- Reviewer for the "QCRE Golomski Award 2023", IISE Quality Control And Reliability Engineering (QCRE) Division, Aug, 2023
- Reviewer for the "2023 INFORMS Data Mining Best Paper Competition [Student Track]", 2023 Data Mining Best Paper Competition, INFORMS Annual Meeting 2023, Phoenix, AZ, USA, Oct, 2023
- Reviewer for the "IISE-DAIS Best Student Paper Competition", IISE Annual Conference & Expo 2023, New Orleans, LA, USA, May 2023
- Judge of the student competition session "Sustainability in Manufacturing and Cluster Best Student Paper Talks", INFORMS Annual Meeting, Indianapolis, IN, USA, Oct 2022

Session Chair

- Session Chair, "Domain-Informed Machine Learning in Engineering," INFORMS Annual Meeting, San Francisco, CA, USA, November 2026 (scheduled)
- Session Chair of the session "Decision Making on Production System", INFORMS Annual Meeting, Seattle, WA, USA, October 2024
- Session Chair of the session "MSOM/Service Operations Flash Session", INFORMS Annual Meeting, Indianapolis, IN, USA, October 2023
- Session Chair of the session "Advanced Data Analytics for Reliability and Maintenance", INFORMS Annual Meeting, Phoenix, AZ, USA, October 2023
- Session Chair of the session "Data Science & Statistical Learning", 2023 Texas A&M Conference on Energy, September 2023

Journal and Conference Reviewer

- *IIEE Transactions*
- *Technometrics*
- *INFORMS Journal on Computing*
- *INFORMS Journal on Data Science*
- *European Journal of Operational Research*
- *IEEE Transactions on Automation Science and Engineering*
- *Journal of Intelligent Manufacturing*
- *IEEE Transactions on Reliability*
- *Journal of Quality Technology*
- *North American Manufacturing Research Conference (NAMRC)*
- *IEEE Transactions on Semiconductor Manufacturing*
- *Journal of Manufacturing Processes*
- *ASME International Manufacturing Science and Engineering Conference (MSEC)*
- *Reliability Engineering & System Safety*
- *Communications in Statistics: Case Studies, Data Analysis and Applications*

PATENTS

Issued

- **J. Lee**, D. Kim, H. Jang, K. Kim, “Method and apparatus for joining index sequences in SPARQL”, Korean Patent KR 101633055B1, granted June 23, 2016, Assignee: Diquest Inc.