

John P. Lalor

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🌐 <http://www.johnlalor.net/>

Employment History

- 2020 – present 📌 **Assistant Professor.** IT, Analytics, and Operations Department, University of Notre Dame Mendoza College of Business
Computer Science and Engineering Department (concurrent), College of Engineering
Department of Medicine (adjunct), Indiana University School of Medicine South Bend
- 2019 📌 **Instructor.** IT, Analytics, and Operations Department, University of Notre Dame Mendoza College of Business
- 2017 – 2018 📌 **Applied Scientist Intern.** Amazon Alexa, Cambridge, MA
- 2016 📌 **Research Intern.** ESPN Advanced Technology Group, Bristol, CT
- 2013 – 2015 📌 **Software Developer.** Eze Software Group, Chicago, IL
- 2011 – 2013 📌 **Advisory Associate.** KPMG, Chicago, IL

Education

- 2020 📌 **Ph.D. Computer Science, University of Massachusetts, Amherst**
Thesis title: Learning Latent Characteristics of Data and Models using Item Response Theory.
Advisor: Dr. Hong Yu
- 2015 📌 **M.Sc. Computer Science, DePaul University**
- 2011 📌 **B.B.A. IT Management, University of Notre Dame**
Minor: Irish Language and Literature

Awards and Achievements

- 2025 📌 **INFORMS Design Science Award**
- 2025 📌 **Editors' Pick for Notable Papers**, ACM Transactions on Information Systems (TOIS). For *Should Fairness Be a Metric or a Model? A Model-based Framework for Assessing Bias in Machine Learning Pipelines*.
- 2025 📌 **Mendoza Mission Research Award**, Mendoza College of Business, University of Notre Dame.
- 2022 📌 **Zac Plantz Memorial Achievement Award**, IT, Analytics, and Operations Department, Mendoza College of Business, University of Notre Dame.
- 2021 📌 **ICIS Best Theory Paper**, The Effect of Bots on Human Interaction in Online Communities.













Research Support

- 2024 – 2028 📌 **NSF Collaborative Research Medium Award**, NSF, Award: \$1.2M (ND Share: \$339.3k)
Title: Hard Data to the Model: Personalized, Diverse Preferences for Language Models
Role: Co-PI. PI: Jordan Boyd-Graber.
Other Co-PI's: Swabha Swayamdipta, Robin Jia, Alvin Grissom.
- 2020 – 2021 📌 **Atlantic Coast Conference Innovation Initiative.** Award: \$5,500
PI: John Lalor.
Title: Development and validation of a multidimensional mental health screening instrument.
- 2020 📌 **National Library of Medicine.** Award: \$10,000
Subaward recipient: John Lalor. PI: Hong Yu.
Title: Resource Curation and Evaluation for EHR Note Comprehension.
- 2020 📌 **Notre Dame Faculty Research Support Program - Initiation Grant.** Award: \$10,000
PI: John Lalor
Title: Towards Automatic Generation of Electronic Health Record Note Comprehension Questions.

Research Outputs










Note: *: Equal Contribution, #: Graduate Student









Journal Articles

15. R. Krishnan, **J. P. Lalor**, N. Prat, and A. Abbasi, "From policy to practice: Research directions for trustworthy and responsible ai 'by design'," *IEEE Intelligent Systems (forthcoming)*, 2025.
14. W. Li#, **J. P. Lalor**, Y. Chen, and V. Kanuri, "From Stars to Insights: Exploration and Implementation of Unified Sentiment Analysis with Distant Supervision," *ACM Transactions on Management Information Systems*, vol. 16, no. 3, pp. 1–21, 2025.
13. G. Meng#, Q. Zeng#, **J. P. Lalor**, and H. Yu, "A psychology-based unified dynamic framework for curriculum learning," *Computational Linguistics (forthcoming)*, 2025.
12. Y. Yang, **J. P. Lalor**, A. Abbasi, and D. D. Zeng, "Hierarchical Deep Document Model," *IEEE Transactions on Knowledge and Data Engineering*, vol. 37, no. 1, pp. 351–364, Jan. 2025, ISSN: 1558-2191.  DOI: 10.1109/TKDE.2024.3487523.
11. **J. P. Lalor**, A. Abbasi, K. Oketch#, Y. Yang, and N. Forsgren, "Should Fairness be a Metric or a Model? A Model-based Framework for Assessing Bias in Machine Learning Pipelines," *ACM Transactions on Information Systems*, vol. 42, no. 4, 99:1–99:41, Mar. 22, 2024, Selected for presentation at ACM SIGIR 2024 (approximately 10-12% of annual TOIS publications are invited). Selected as ACM TOIS Editors' Pick for Notable Papers., ISSN: 1046-8188.  DOI: 10.1145/3641276.
10. **J. P. Lalor**, D. A. Levy, H. S. Jordan, W. Hu, J. K. Smirnova, and H. Yu, "Evaluating expert-layperson agreement in identifying jargon terms in electronic health record notes: Observational study," *Journal of Medical Internet Research*, vol. 26, e49704, 2024.  URL: <https://www.jmir.org/2024/1/e49704>.
9. D. A. Levy, H. S. Jordan, **J. P. Lalor**, *et al.*, "Individual factors that affect laypeople's understanding of definitions of medical jargon," *Health Policy and Technology*, vol. 13, no. 6, p. 100 932, Dec. 1, 2024, ISSN: 2211-8837.  DOI: 10.1016/j.hlpt.2024.100932.
8. H. Safadi, **J. P. Lalor**, and N. Berente, "The Effect of Bots on Human Interaction in Online Communities," *MIS Quarterly*, vol. 48, no. 3, pp. 1279–1295, 2024, ISSN: 02767783.  URL: <https://aisel.aisnet.org/misq/vol48/iss3/15/>.
7. **J. P. Lalor** and P. Rodriguez, "py-irt: A scalable Item Response Theory library for Python," *INFORMS Journal on Computing*, vol. 35, no. 1, pp. 5–13, 2023.  URL: <https://pubsonline.informs.org/doi/abs/10.1287/ijoc.2022.1250>.
6. **J. P. Lalor**, H. Wu, K. M. Mazor, and H. Yu, "Evaluating the efficacy of NoteAid on EHR note comprehension among US veterans through amazon mechanical turk," *International Journal of Medical Informatics*, vol. 172, p. 105 006, 2023.  URL: <https://www.sciencedirect.com/science/article/abs/pii/S1386505623000230>.
5. K. D. Wowak, **J. P. Lalor**, S. Somanchi, and C. M. Angst, "Business Analytics in Healthcare: Past, Present, and Future Trends," *Manufacturing & Service Operations Management*, vol. 25, no. 3, pp. 975–995, May 2023, ISSN: 1523-4614.  DOI: 10.1287/msom.2023.1192.
4. **J. P. Lalor**, W. Hu, M. Tran, H. Wu, K. M. Mazor, and H. Yu, "Evaluating the Effectiveness of NoteAid in a Community Hospital Setting: Randomized Trial of Electronic Health Record Note Comprehension Interventions With Patients," *Journal of Medical Internet Research*, vol. 23, no. 5, e26354, 2021.  URL: <https://www.jmir.org/2021/5/e26354/>.
3. J. Chen, **J. P. Lalor**, W. Liu, *et al.*, "Detecting Hypoglycemia Incidents Reported in Patients' Secure Messages: Using Cost-Sensitive Learning and Oversampling to Reduce Data Imbalance," *Journal of Medical Internet Research*, vol. 21, no. 3, e11990, 2019, ISSN: 1438-8871 1439-4456.  DOI: 10.2196/11990. pmid: 30855231.
2. **J. P. Lalor**, B. Woolf, and H. Yu, "Improving electronic health record note comprehension with noteaid: Randomized trial of electronic health record note comprehension interventions with crowdsourced workers," *Journal of Medical Internet Research*, vol. 21, no. 1, e10793, 2019.  URL: <https://www.jmir.org/2019/1/e10793/>.
1. **J. P. Lalor**, H. Wu, L. Chen, K. M. Mazor, and H. Yu, "ComprehENotes, an instrument to assess patient reading comprehension of electronic health record notes: Development and validation," *Journal of Medical Internet Research*, vol. 20, no. 4, e9380, 2018.  URL: <https://www.jmir.org/2018/4/e139/>.

Conference Talks and Proceedings

43. S. Chen#, **J. P. Lalor**, Y. Yang, and A. Abbasi, "Personatwin: A multi-tier prompt conditioning framework for generating and evaluating personalized digital twins," in *Proceedings of the GEM2 Workshop: Generation, Evaluation & Metrics - ACL 2025*, 2025.
42. R. Cook#, **J. P. Lalor**, and A. Abbasi, "No Simple Answer to Data Complexity: An Examination of Instance-Level Complexity Metrics for Classification Tasks," in *Proceedings of the 2025 Annual Conference of the Nations of the Americas Chapter of the Association for Computational Linguistics*, 2025.
41. **J. P. Lalor**, R. Qin#, D. Dobolyi, and A. Abbasi, "Textagon: Boosting language models with theory-guided parallel representations," in *Proceedings of the 2025 Annual Meeting of the Association for Computational Linguistics*, 2025.
40. K. Oketch#, **J. P. Lalor**, and A. Abbasi, "Cultural artifacts, linguistic digital divide, and language model behavior," in *Workshop on Information Technologies and Systems (WITS)*, 2025.
39. K. Oketch#, **J. P. Lalor**, and A. Abbasi, "Cultural artifacts, tribal heterogeneity, and language models," in *International Conference on Information Systems (ICIS)*, 2025.
38. K. Oketch#, **J. P. Lalor**, Y. Yang, and A. Abbasi, "Bridging the LLM Accessibility Divide? Performance, Fairness, and Cost of Closed versus Open Models for Automated Essay Scoring," in *Proceedings of the GEM2 Workshop: Generation, Evaluation & Metrics - ACL 2025*, 2025.
37. N. Prat, **J. P. Lalor**, and A. Abbasi, "GALEA – Leveraging Generative Agents in Artifact Evaluation," in *Proceedings of The 20th International Conference on Design Science Research in Information Systems and Technology (DESRIST)*, 2025.
36. Y. Yang, H. Duan#, A. Abbasi, **J. P. Lalor**, and K. Y. Tam, "Bias A-head? Analyzing Bias in Transformer-Based Language Model Attention Heads," in *Proceedings of the Fifth Workshop on Trustworthy Natural Language Processing (TrustNLP)*, 2025.
35. **J. P. Lalor**, C. Angst, F. Nwanganga, and J. D'Arcy, "It's Not What You Say, It's How You Say It: How Cultural Dimensions impact GDPR Fine Summaries," presented at the Twentieth Symposium on Statistical Challenges in Electronic Commerce Research, 2024.
34. **J. P. Lalor**, C. Angst, F. Nwanganga, and J. D'Arcy, "It's Not What You Say, It's How You Say It: How Cultural Dimensions impact GDPR Fine Summaries," presented at the Academy of Management Annual Meeting, 2024.
33. **J. P. Lalor**, P. Rodriguez, J. Sedoc, and J. Hernandez-Orallo, "Item response theory for natural language processing," in *Proceedings of the 18th Conference of the European Chapter of the Association for Computational Linguistics: Tutorial Abstracts*, M. Mesgar and S. Loáiciga, Eds., St. Julian's, Malta: Association for Computational Linguistics, Mar. 2024, pp. 9–13. [URL: https://aclanthology.org/2024.eacl-tutorials.2](https://aclanthology.org/2024.eacl-tutorials.2).
32. W. Li#, Y. Chen, S. Zheng#, L. Wang, and **J. P. Lalor**, "Stars are all you need: A distantly supervised pyramid network for unified sentiment analysis," in *Proceedings of the Ninth Workshop on Noisy and User-Generated Text (w-NUT 2024)*, 2024, pp. 104–118. [URL: https://aclanthology.org/2024.wnut-1.10/](https://aclanthology.org/2024.wnut-1.10/).
31. X. Duan# and **J. P. Lalor**, "H-COAL: Human correction of AI-Generated labels for biomedical named entity recognition," in *Conference on Information Systems and Technology (CIST)*, 2023. [URL: https://arxiv.org/abs/2311.11981](https://arxiv.org/abs/2311.11981).
30. **J. P. Lalor**, "Ranking pull requests in open source software," presented at the Academy of Management Annual Meeting, 2023.
29. **J. P. Lalor**, "On-the-fly Difficulty Estimation for Deep Neural Networks," presented at the INFORMS Annual Meeting, 2022.
28. **J. P. Lalor**, Y. Yang, K. Smith, N. Forsgren, and A. Abbasi, "Benchmarking intersectional biases in NLP," in *Proceedings of the 2022 Annual Conference of the North American Chapter of the Association for Computational Linguistics*, Association for Computational Linguistics, 2022.
27. P. Rodriguez, P. M. Htut, **J. P. Lalor**, and J. Sedoc, "Clustering examples in multi-dataset benchmarks with item response theory," in *Proceedings of the Third Workshop on Insights from Negative Results in NLP*, 2022, pp. 100–112. [URL: https://aclanthology.org/2022.insights-1.14/](https://aclanthology.org/2022.insights-1.14/).

26. A. Abbasi, D. Dobolyi, **J. P. Lalor**, R. G. Netemeyer, K. Smith, and Y. Yang, "Constructing a psychometric testbed for fair natural language processing," in *Proceedings of the 2021 Conference on Empirical Methods in Natural Language Processing*, 2021, pp. 3748–3758.  URL: <https://aclanthology.org/2021.emnlp-main.304/>, Authors listed alphabetically.
25. N. Berente, **J. P. Lalor**, S. Somanchi, and A. Abbasi, "The Illusion of Certainty and Data-Driven Decision Making in Emergent Situations," in *International Conference on Information Systems (ICIS)*, 2021.  URL: https://aisel.aisnet.org/icis2021/gen_topics/gen_topics/10/.
24. **J. P. Lalor** and H. Guo, "Measuring Algorithmic Interpretability," presented at the INFORMS Annual Meeting, 2021.
23. **J. P. Lalor**, W. Hu, M. Tran, K. Mazor, and H. Yu, "Does Defining Medical Jargon In A Community Hospital Setting Improve Comprehension?" Presented at the INFORMS Healthcare Conference, 2021.
22. P. Rodriguez, J. Barrow, A. M. Hoyle, **J. P. Lalor**, R. Jia, and J. Boyd-Graber, "Evaluation examples are not equally informative: How should that change NLP leaderboards?" In *Proceedings of the 59th Annual Meeting of the Association for Computational Linguistics and the 11th International Joint Conference on Natural Language Processing (Volume 1: Long Papers)*, 2021, pp. 4486–4503.  URL: <https://aclanthology.org/2021.acl-long.346/>.
21. H. Safadi, **J. P. Lalor**, and N. Berente, "The Effect of Bots on Human Interaction in Online Communities," in *International Conference on Information Systems (ICIS)*, 2021.  URL: https://aisel.aisnet.org/icis2021/ai_business/ai_business/1/.
20. **J. P. Lalor**, N. Berente, and H. Safadi, "Bots versus humans in online social networks: A study of Reddit communities," presented at the INSNA Sunbelt Conference, 2020.
19. **J. P. Lalor** and H. Guo, "Towards Measuring Algorithmic Interpretability," presented at the INFORMS Workshop on Data Science, 2020.
18. **J. P. Lalor** and H. Yu, "Dynamic data selection for curriculum learning via ability estimation," in *Findings of the Association for Computational Linguistics: EMNLP 2020*, vol. 2020, 2020, p. 545.  URL: <https://aclanthology.org/2020.findings-emnlp.48/>.
17. M.-C. Ma# and **J. P. Lalor**, "An Empirical Analysis of Human-Bot Interaction on Reddit," in *Proceedings of the Sixth Workshop on Noisy User-generated Text (W-NUT 2020)*, Workshop on Noisy User-generated Text (W-NUT), Online: Association for Computational Linguistics, Nov. 2020, pp. 101–106.  DOI: 10.18653/v1/2020.wnut-1.14. (visited on 09/28/2021).
16. E. Cho, H. Xie, **J. P. Lalor**, V. Kumar, and W. M. Campbell, "Efficient Semi-Supervised Learning for Natural Language Understanding by Optimizing Diversity," presented at the ASRU 2019: The IEEE Automatic Speech Recognition and Understanding Workshop, 2019.  URL: <https://arxiv.org/abs/1910.04196>.
15. **J. P. Lalor**, H. Wu, and H. Yu, "Comparing Human and DNN-Ensemble Response Patterns for Item Response Theory Model Fitting," presented at the Workshop on Cognitive Modeling and Computational Linguistics (CMCL), 2019.
14. **J. P. Lalor**, H. Wu, and H. Yu, "Learning Latent Parameters without Human Response Patterns: Item Response Theory with Artificial Crowds," presented at the Workshop on Shortcomings in Vision and Language (SiVL), 2019.
13. **J. P. Lalor**, H. Wu, and H. Yu, "Learning latent parameters without human response patterns: Item response theory with artificial crowds," in *Proceedings of the Conference on Empirical Methods in Natural Language Processing. Conference on Empirical Methods in Natural Language Processing*, vol. 2019, 2019, p. 4240.  URL: <https://aclanthology.org/D19-1434/>.
12. J. Chen, **J. P. Lalor**, and H. Yu, "Detecting Hypoglycemia Incidents from Patients' Secure Messages," presented at the American Medical Informatics Association (AMIA) Annual Symposium, 2018.
11. **J. P. Lalor**, H. Wu, T. Munkhdalai, and H. Yu, "Understanding deep learning performance through an examination of test set difficulty: A psychometric case study," in *Proceedings of the Conference on Empirical Methods in Natural Language Processing. Conference on Empirical Methods in Natural Language Processing*, vol. 2018, 2018, p. 4711.  URL: <https://aclanthology.org/D18-1500/>.
10. **J. P. Lalor**, H. Wu, and H. Yu, "Modeling Difficulty to Understand Deep Learning Performance," presented at the Northern Lights Deep Learning Workshop (NLDL), 2018.

9. **J. P. Lalor**, H. Wu, and H. Yu, "Soft Label Memorization-Generalization for Natural Language Inference," presented at the UAI Workshop on Uncertainty in Deep Learning, 2018.  URL: <https://arxiv.org/abs/1702.08563v3>.
8. **J. P. Lalor**, H. Wu, L. Chen, K. Mazar, and H. Yu, "Generating a Test of Electronic Health Record Narrative Comprehension with Item Response Theory," presented at the American Medical Informatics Association (AMIA) Annual Symposium, 2017.
7. **J. P. Lalor**, H. Wu, and H. Yu, "CIFT: Crowd-Informed Fine-Tuning to Improve Machine Learning Ability," in *Human Computation and Crowdsourcing (HCOMP)*, 2017.  URL: <https://arxiv.org/abs/1702.08563v2>.
6. **J. P. Lalor**, H. Wu, and H. Yu, "Building an evaluation scale using item response theory," in *Proceedings of the Conference on Empirical Methods in Natural Language Processing. Conference on Empirical Methods in Natural Language Processing*, vol. 2016, 2016, p. 648.  URL: <https://aclanthology.org/D16-1062/>.
5. T. Munkhdalai, **J. P. Lalor**, and H. Yu, "Citation analysis with neural attention models," in *Proceedings of the Seventh International Workshop on Health Text Mining and Information Analysis*, 2016, pp. 69–77.  URL: <https://aclanthology.org/W16-6109/>.
4. C. Miller, A. Settle, and **J. P. Lalor**, "Learning object-oriented programming in python: Towards an inventory of difficulties and testing pitfalls," in *Proceedings of the 16th Annual Conference on Information Technology Education*, 2015.  URL: <https://dl.acm.org/doi/10.1145/2808006.2808017>.
3. A. Settle, **J. P. Lalor**, and T. Steinbach, "A computer science linked-courses learning community," in *Proceedings of the 2015 ACM Conference on Innovation and Technology in Computer Science Education*, 2015, pp. 123–128.  URL: <https://dl.acm.org/doi/10.1145/2729094.2742621>.
2. A. Settle, **J. P. Lalor**, and T. Steinbach, "Evaluating a linked-courses learning community for development majors," in *Proceedings of the 16th Annual Conference on Information Technology Education*, 2015, pp. 127–132.  URL: <https://dl.acm.org/doi/10.1145/2808006.2808031>.
1. A. Settle, **J. P. Lalor**, and T. Steinbach, "Reconsidering the impact of CS1 on novice attitudes," in *Proceedings of the 46th ACM Technical Symposium on Computer Science Education*, 2015, pp. 229–234.  URL: <https://dl.acm.org/doi/10.1145/2676723.2677235>.


Research Projects

Under Review/Revision











5. **J. P. Lalor**, V. Kanuri, and I. Chakraborty, "FEWD: A fused explainable model using wide and deep networks for synthesizing multi-modal content," Under review (1st round) at Production and Operations Management.
4. S. Li#, **J. P. Lalor**, F. Ahmad, A. Abbasi, and N. Chawla, "Modeling edge-rich graphs using neural networks," Under review (1st round) at IEEE Transactions on Knowledge and Data Engineering.
3. M. Mohlmann, **J. P. Lalor**, Y. Son, and N. Berente, "Inflation in reputation systems? Newcomers, veterans, and socialization into a platform context," Under review (5th round) at Information Systems Research.
2. K. Pothugunta and **J. P. Lalor**, "When ai learns to care: Cross-cultural variation in artificial compassion," Under review (1st round) at Information Systems Research Special Issue on Compassionate AI.
1. S. Zheng#, **J. P. Lalor**, and Y. Chen, "Diversifying recommendations on digital platforms: A dynamic graph neural network approach," Major revision (after 1st round) at Management Science.

Working Papers

9. J. Costello, Y. Chen, **J. P. Lalor**, and R. Guo, "Rate before you write: How the presence and positioning of multidimensional attribute ratings influence attrition in online reviews," Under review (1st round) at Journal of Marketing Research.
8. **J. P. Lalor**, C. Angst, S. Somanchi, J. D'Arcy, and F. Nwanganga, "When uniform regulation meets local realities: A theory of distributed decoupling in the case of gdpr and empirical validation."
7. **J. P. Lalor**, H. Guo, N. Berente, A. Abbasi, and J. Recker, "Measuring algorithmic interpretability: A human-learning-based framework and the corresponding cognitive complexity score," Target: MIS Quarterly.





6. **J. P. Lalor** and S. Qu, “On the Production and Spread of News in a Digital Age.”
5. Z. Zhao, S. Qu, **J. P. Lalor**, and A. Abbasi, “Learning from the Curve: Predicting Successful Projects using Functional PCA.”
4. R. Cook#, **J. P. Lalor**, and A. Abbasi, “Cade: Classification with automatic difficulty estimation,” 2025.
3. K. Oketch#, **J. P. Lalor**, and A. Abbasi, “Is linguistic variation signal or noise? a taxonomy-guided evaluation of sociolinguistic diversity in swahili nlp,” 2025.
2. J. H. Lim#, S. Kwon#, Z. Yao#, **J. P. Lalor**, and H. Yu. “Large language model-based role-playing for personalized medical jargon extraction.” (2024),  URL: <https://arxiv.org/abs/2408.05555>.
1. **J. P. Lalor** and R. Just, “Ranking pull requests in open source software,” 2023.

Tutorials and Talks




- | | |
|---------|--|
| 11/2024 |  Should Fairness be a Metric or a Model? New Perspectives on Fairness. <i>University of Amsterdam</i> , invited talk. |
| 05/2024 |  AI and Ethics: Growing the Good in Business, <i>Notre Dame Tech Forum</i> , invited panelist |
| 03/2022 |  UT Austin PhD Seminar, invited lecturer |
| |  Item Response Theory for Natural Language Processing, Notre Dame NL+ seminar |
| 10/2020 |  Dynamic Data Selection for Curriculum Learning via Ability Estimation. <i>Notre Dame Data, Inference, Analysis, and Learning Lab</i> . |
| 09/2019 |  Learning Latent Parameters Without Human Response Patterns: Item Response Theory with Artificial Crowds. <i>Notre Dame Department of Computer Science and Engineering Seminar Series</i> . |
| 11/2018 |  Evaluation and Interpretability in Deep Neural Networks. <i>American Medical Informatics Association (AMIA) Annual Symposium Instructional Workshop</i> , 2018. With A. Jagannatha and H. Yu. |
| 09/2018 |  Leveraging Uncertainty for Better DNN Training and Evaluation. <i>UMass Lowell Data Science Lecture Series</i> . |
| 09/2017 |  Building Better Evaluations using Item Response Theory. <i>University of Notre Dame Natural Language Processing Group</i> . |
| 12/2016 |  Building Evaluation Scales for NLP using Item Response Theory. <i>UMass CICS Machine Learning and Friends Lunch series</i> . |

Teaching

University of Notre Dame

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|-----------|--|
| 2022– |  ITAO 80810 : Machine Learning and Natural Language Processing
PhD students in Business Analytics |
| |  MSSA 60230 : Data Analysis with Python
Masters-level students |
| 2019– |  ITAO 40250 : Unstructured Data Analytics
Advanced undergraduate students |
| 2019–2022 |  ITAO 70810 : Data Wrangling with R
Masters-level students |

University of Massachusetts Amherst

- | | |
|-----------|---|
| Fall 2018 |  UMass Lowell Data Science Lecture Series University of Massachusetts Lowell |
| |  CICS First Year Seminar University of Massachusetts Amherst |
| 2015 |  Introduction to Computer Science, Amherst College Amherst, MA
Teaching Assistant |

Advising

Thesis Committee Member

current	■	Xiaojing Duan, PhD, Computer Science, University of Notre Dame
2022	■	Phu Mon Htut, PhD, Computer Science, New York University
2021	■	Pedro Rodriguez, PhD, Computer Science, University of Maryland College Park

Research Supervisor

2024-2025	■	Sarah Deussing, MS, Business Analytics
2023-2024	■	Guangyu Meng, PhD, Computer Science
2021-2023	■	Yu Chu Huang, MS, Business Analytics
	■	Kaitlin Ryan, MS, Business Analytics
2021	■	Aiden McFadden, BBA, Business Analytics
2020-2021	■	Keagan McLaughlin, BBA, Business Analytics
2019	■	Vincent Buono, BBA, Business Analytics
2019-2020	■	Ming-Cheng Ma, MS, Business Analytics
2018	■	Long Le, BS, Computer Science
2017-2018	■	Nikhil Titus, MS, Computer Science

Other Advising

2018	■	UMass CICS Industry Mentor Program Research Mentor
2014 - 2015	■	DePaul University Computer Science Tutor

Media Coverage

08/06/2025	■	"GPs are using artificial intelligence to record patient consultations but how safe is your personal data?" https://www.abc.net.au/news/2025-08-06/doctor-ai-artificial-intelligence-scribe-notes-appointment/105615244
Spring 2025	■	"Bots increase online user engagement but stifle meaningful discussion, study shows." https://news.nd.edu/news/bots-increase-online-user-engagement-but-stifle-meaningful-discussion-study-shows/
	■	"Helper bots in online communities diminish human interaction." https://theconversation.com/helper-bots-in-online-communities-diminish-human-interaction-251795
Spring 2023	■	"Research - Single-Sourcing is Better Patient Care." https://bizmagazine.nd.edu/issues/2023/spring-2023/research-single-sourcing-is-better-patient-care/
07/20/2021	■	Mendoza News, "Artificial intelligence tool could increase patient health literacy, study shows." https://mendoza.nd.edu/news/ai-tool-increases-health-literacy/
02/20/2019	■	VA Research News Briefs, "Educational tool helps patient understand electronic health records." https://www.research.va.gov/in_brief.cfm
04/11/2017	■	NYU Center for Data Science, "Can deep learning models learn like the human brain?" https://cds.nyu.edu/machine-learning-intelligence/

Service

Program Committees

2023	■	Area Editor ACL, ICIS
2022	■	Session Chair INFORMS Annual Meeting
	■	Senior Program Committee SIGKDD Conference on Knowledge Discovery and Data Mining (KDD)

Service (continued)

Conference Reviewing

- ACL Rolling Review (ARR), Workshop on Insights from Negative Results in NLP, ACL Workshop on Representation Learning for NLP (RepL4NLP), Pacific Asia Conference on Information Systems (PACIS), Workshop on Dynamic Adversarial Data Collection (DADC) North American Chapter of the Association of Computational Linguistics (NAACL), International Conference on Information Systems (ICIS), Association of Computational Linguistics (ACL), International Conference on Design Science Research in Information Systems and Technology (DESIST) Empirical Methods in Natural Language Processing (EMNLP), American Medical Informatics Association (AMIA), Asia-Pacific Chapter of the Association for Computational Linguistics (AACL) The SIGNLL Conference on Computational Natural Language Learning (CoNLL)

Journals I've Reviewed For

- MIS Quarterly, Information Systems Research (ISR), Management Science, IEEE Intelligent Systems, Journal of the Association for Information Systems (JAIS), American Journal of Preventative Medicine (AJPM), Journal of Medical Internet Research (JMIR), Journal of the American Medical Informatics Association (JAMIA)

Additional Service

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| 2020 - | ■ Co-organizer Notre Dame NL+ Natural Language Processing Lunch Seminar. |
| 2018 - 2019 | ■ Co-organizer UMass CICS Machine Learning and Friends Lunch. |
| 2014 - 2015 | ■ Graduate Ambassador DePaul University |

Last Updated: January 2026