

Sen Yan

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EDUCATION

Leeds School of Business, University of Colorado, Boulder
Ph.D. Candidate in Information Systems
Co-advised by Kai R. Larsen and David Dobolyi

Boulder, CO, USA
2021 – 2026 (Expected)

Shanghai University of Finance and Economics
B.S. in Financial Management
Minor in Computer Science

Shanghai, China
2017 – 2021

RESEARCH INTEREST

Agentic AI, Psychometric Methodology, Large Language Model Algorithms, Influencer Marketing, Digital Trust, Digital Learning, Generative AI Governance

TEACHING INTEREST

Agentic AI in Business Analytics, Large Language Model, Programming, Cybersecurity, Statistic, Databases

PUBLICATION

1. **Yan, S.**, Wang, Z., & Dobolyi, D. (2025). *An explainable framework for assisting the detection of AI-generated textual content*. *Decision Support Systems*, 114498.
2. Keller, W., Shiue, C. H., & **Yan, S.** (2025). *Mining Chinese historical sources at scale: A machine learning approach to Qing state capacity*. *Historical Methods: A Journal of Quantitative and Interdisciplinary History*, 1-25.

WORKING PAPER

Papers under review

1. Schöbel, S., Moritz, J., **Yan, S.**, Thatcher, J., & Söllner, M. *Nudges, generative AI, and prompt engineering: A Social Cognitive Theory approach to online training* (Manuscript under review, 2nd revision invited at *MIS Quarterly*).

Papers in preparation for submission

1. **Yan, S.**, Larsen, K., & Li, J., *OntoLLM: An Ontology-Grounded, Multi-Agent LLM System for End-to-End Behavioral Research Workflows* (Manuscript in preparation, Target: *MIS Quarterly*, INFORMS Workshop on Data Science 2025 Best Student Paper Finalist).
2. Larsen, K., **Yan, S.**, Mueller, R., Sang, L., Starzl, R., & Rönkkö, M., *ALIGNs: Unlocking nomological networks in psychological measurement through a large language model*. (Manuscript in preparation, Target: *Academy of Management Journal*)
3. **Yan, S.**, Larsen, K., Li, J. & Lukyanenko, R., *Integrating LLMs and psychometrics: Global construct validity* (Manuscript in preparation, Target: *MIS Quarterly*).

4. Dobolyi, D., & **Yan, S.**, *Tri-model deep learning for sponsor content detection* (Data Analysis, Target: *MIS Quarterly*).
5. Chen, P., Shiue, C., Keller, W., & **Yan, S.**, *Text to data: A machine learning approach to historical Chinese documents* (Manuscript in preparation, Target: *Research Policy*).
6. Larsen, K., Mueller, R. M., Handler, A., **Yan, S.**, & Huettemann, S., *ISReCon: An ontological approach to discovering research conversations in IS* (Model development, Target: *MIS Quarterly*).

CONFERENCE PROCEEDING & PRESENTATION

1. Larsen, K., **Yan S.**, Mueller R., Sang L., and Starzl R., and Edmondson D., Nomological decomposition of 17,180 Behavioral Medicine indicators using a PROMIS-finetuned Large Language Model, 11th Annual PROMIS International Conference, Milwaukee, WI, USA, October 26-28th, 2025.
2. Lu, Y., Larsen, K. R., **Yan, S.**, Mueller, R., & Sang, L. (2025), Validating and clarifying PROMIS measurement scales using a specialized large language model, 11th Annual PROMIS International Conference, Milwaukee, WI, United States, October 26-28th, 2025.
3. Larsen, K. R., **Yan, S.**, Mueller R., Sang L., and Starzl R., Nomological Validation: Returning the Lost Validity Through an LLM for Theory-Driven Psychometrics, 20th International Conference on Design Science Research in Information Systems and Technology (DESRIST), Montego Bay, Jamaica, June 4-6th, 2025.
4. **Yan, S.**, Larsen, K., & Li, J. (2025). *OntoLLM: A Holistic Ontology-Infused LLM for Behavioral Research Workflows* Paper accepted to present at the Workshop on Information Technologies and Systems (WITS 2025), Nashville, TN
5. Larsen, K., **Yan, S.**, Mueller, R., Sang, L., Starzl, R., & Rönkkö, M. (2025). *The Integration of Psychological Disciplines: Solving a 70-year-old Challenge Through a Fine-tuned Large Language Model* Paper accepted to present at the Workshop on Information Technologies and Systems (WITS 2025), Nashville, TN
6. **Yan, S.**, Larsen, K., & Li, J. (2025). *OntoLLM: A Holistic Ontology-Infused LLM for Behavioral Research Workflows* Paper accepted to present at the INFORMS Workshop on Data Science (WDS 2025), Atlanta, GA.
7. Larsen, K. R., & **Yan, S.** (2024). *Integrating LLMs and psychometrics: Global construct validity*. Paper presented at the International Conference on Information Systems (ICIS 2024), Bangkok, Thailand.
8. Larsen, K. R., & **Yan, S.** (2024). *Integrating LLMs and psychometrics: Global construct validity*. Paper presented at the INFORMS Annual Meeting 2024, Seattle, WA.
9. Larsen, K. R., & **Yan, S.** (2024). *Is behavioral cross-sectional information systems research just linguistic manipulation?* Provocation presented at the 32nd European Conference on Information Systems (ECIS 2024), Paphos, Cyprus.
10. Shiue, C., Keller, W., & **Yan, S.** (2024). *Mining Chinese historical sources at scale: A machine learning approach to Qing state capacity*. Paper presented at the CEPR Economic History Annual Symposium 2024, Dublin, Ireland.
11. **Yan, S.**, Wang, Z., & Dobolyi, D. (2023). *A design framework for detecting and understanding AI-generated texts: Fusing transformers and linguistic features*. Paper presented at the INFORMS Annual Meeting 2023, Phoenix, AZ.
12. **Yan, S.**, Wang, Z., & Dobolyi, D. (2023). *A design framework for detecting and understanding AI-generated texts: Fusing transformers and linguistic features*. Paper presented at the INFORMS Workshop on Data Science (WDS 2023), Phoenix, AZ.
13. Mueller, R. M., Huettemann, S., Larsen, K. R., **Yan, S.**, & Handler, A. (2022). *Toward an information systems ontology*. In *Proceedings of the 17th International Conference on Design Science Research in Information Systems and Technology (DESRIST 2022)*, Tampa, FL.
14. Cui, W., & **Yan, S.** (2021). *Isotonic data augmentation for knowledge distillation*. In *Proceedings of the 30th International Joint Conference on Artificial Intelligence (IJCAI 2021)*. Virtual.
15. **Yan, S.**, Yang, B., & Hui, F. (2020). *UnitedANT: A multimodal deep learning framework for predicting financial risk from acoustic, numeric, and textual cues in earnings conference calls*. In *Proceedings of the 30th Workshop on Information Technologies and Systems (WITS 2020)*. Virtual.

TEACHING EXPERIENCE

- **Instructor**, 2025 Spring, Introduction to Python Programming (BAIM3220) at CU Boulder
- **Instructor**, 2022 Spring, Business Analytics (BAIM3200/MKGT3201) at CU Boulder
- **Teaching Assistant**, 2021 Fall, Business Analytics (BAIM3200/MKGT3201) at CU Boulder
- **Teaching Assistant**, 2020 Fall, Natural Language Processing at Shanghai U. of Finance and Economics
- **Teaching Assistant**, 2020 Spring, Natural Language Processing at Shanghai U. of Finance and Economics

HONORS

- INFORMS ISS 2025 Doctoral Consortium
- AMCIS 2025 Doctoral Consortium
- GPSG Travel Grant at Fall 2024 (\$500, support graduate students to attend academic conference, provided by CU Boulder)
- Summer Hart Fellowship 2023 (\$3000, support Ph.D. students to work on their research projects, provided by Leeds School of Business)
- Summer Hart Fellowship 2022 (\$3000, support Ph.D. students to work on their research projects, provided by Leeds School of Business)
- DESRIST 2022, Doctoral Consortium
- Honor Degree, Shanghai University of Finance and Economics

SERVICE

- Reviewer for conferences: International Conference on Information Systems (ICIS), Workshop on Information Technologies and Systems (WITS), Hawaii International Conference on System Sciences (HICSS), Pacific Asia Conference on Information Systems (PACIS)
- Reviewer for journals: Decision Support Systems (DSS)

SKILL

- Programs: Python (master), PyTorch Framework (master), Linux Shell, Java, C++, Javascript, SQL
- Languages: Chinese (native), English (fluent)

REFEREE

Kai R. Larsen

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