## Lan Sang

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#### Education

#### **University of Colorado Boulder**

Ph.D., Information Systems

Boulder, CO, United States May 2026 (Expected)

Dissertation Topic: Toward Trustworthy Health Information: Applying Fine-Tuned LLMs for Quality Assessment and Explanation

Dissertation Committee: Dr. David G. Dobolyi (co-chair), Dr. Kai R. Larsen (co-chair), Dr. Jason B. Thatcher, Dr. Jeffrey Parsons, Dr. Brent Kitchens

#### **University of Colorado Boulder**

M.S. in Computational Linguistics

Boulder, CO, United States *May 2020* 

#### **Nanjing Normal University**

Bachelor of Business Administration & B.A. in French

Nanjing, China *Jun. 2018* 

#### **Research Interests**

- Topic: IS Healthcare, IS Psychometrics, Social Media Analysis
- Methodologies: Design Science, Natural Language Processing, Deep Learning, Machine Learning

### **Research Experience**

Research Assistant	Boulder, CO, United States
Leeds School of Business, University of Colorado Boulder	Aug. 2021-Present

# Affiliated Researcher Data and Society Research Group, North Carolina State University Raleigh, NC, United States Aug. 2024-Present

## **Research Assistant**Boulder, CO, United States Computational Language and Education Research Center, CU Boulder May 2019-Jan. 2021

#### **Publications**

Larsen, K., Muller, R., Parsons, J., Bonaretti, D., Burleson, J., Pillet, J. C., Fischer, D., Singh, N., Sang, L., & Zhang, D. (forthcoming). The ITEM Ontology: A Tool to Elucidate the Anatomy of Psychometric Indicators, *Information Systems Research*.

Kim, S. Y., Soderman, C., & Sang, L. (2025). Sentiment analysis of solar energy in US Cities: a 10-year analysis using transformer-based deep learning. *Journal of Computational Social Science*, 8(2), 1-26.

#### **Working Papers**

- Sang, L & Dobolyi, D. Automated Information Quality Assessment of Health News, Work in Progress. Targeted Journal: *MIS Quarterly*.
- Sang, L., Larsen, K., Gandhi, F., & Gefen, D. What Drives Semantic Predictability in Survey Responses? A Framework of Human, Linguistic, and AI-Driven Factors, Work in Progress. Targeted Journal: *MIS Quarterly*.
- Larsen, K., Yan, S., Mueller, R., Sang, L., & Starzl, R. Nomological Validity: Integrating Measurement Across the Psychometric Science, Under Review at *Science*

#### **Peer-Reviewed Conference Proceedings**

- Sang, L., & Dobolyi, D. (2025). Toward Trustworthy Health Information: Automated Quality Assessment of Health News Using Fine-Tuned LLMs. Conditionally accepted at *the International Conference on Information Systems (ICIS)*.
- Sang, L., Larsen, K., & Gandhi, F. (2025). Synthetic Construct Validity: A Transformational Solution. *In Proceedings of the 58th Hawaii International Conference on System Sciences*, Page 5355 5364
- Sang, L., Dobolyi, D., & Larsen, K. R. (2024). Assessing Public Sentiment on AI-Generated Art Across the United States Using Deep Learning. *In Academy of Management Proceedings* (Vol. 2024, No. 1, p. 19516). Valhalla, NY 10595: Academy of Management

#### Conferences, Seminars, and Consortia

- Sang, L., & Dobolyi, D. (2025). Toward Trustworthy Health Information: A Design Framework Using Fine-Tuned LLMs for Quality Assessment and Explanation. *Front Range IS Seminar (FRISS)* 2025, Fort Collins, USA
- Sang, L., Larsen, K., & Gandhi, F. (2025). Synthetic Construct Validity: A Transformational Solution. *Hawaii International Conference on System Sciences (HICSS)* 2025. Hawaii, USA
- Larsen, K., Yan, S., Muller, R., **Sang, L**., Edmondson, D., Rönkkö, M. (2025). AI-Powered Psychometrics: Unlocking Precision in Psychological Measurement, *International Objective Measurement Workshop (IOMW)* 2025, Colorado, USA
- Sang, L., Dobolyi, D., & Larsen, K. R. (2024). Assessing Public Sentiment on AI-Generated Art Across the United States Using Deep Learning. *INFORMS 2024*. Seattle, USA
- Sang, L., Dobolyi, D., & Larsen, K. R. (2024). Assessing Public Sentiment on AI-Generated Art Across the United States Using Deep Learning. *Academy of Management (AOM)* 2024. Chicago, USA
- Sang, L., Larsen, K., & Gandhi, F. (2024). Synthetic Construct Validity: A Transformational Solution. *European Conference on Information Systems (ECIS) 2024*. Paphos, Cyprus
- Sang, L., Larsen, K., & Gandhi, F. (2024). Synthetic Construct Validity: A Transformational Solution. *Front Range IS Seminar (FRISS)* 2024. Denver, USA

#### **Teaching Interests**

- Natural Language Processing
- Artificial Intelligence
- Python Programming
- Data Analytics
- Business Analytics

#### **Teaching Experience**

#### **Instructor, BAIM 3220 Introduction to Python Programming**

Leeds School of Business, University of Colorado Boulder

• Python programming for business students

Boulder, CO, United States *Aug. 2024-Dec. 2024* 

#### **Instructor, BAIM 3200 Business Analytics**

Leeds School of Business, University of Colorado Boulder

- Alteryx for business analytics, machine learning models
- Deemed teaching proficiency by the department

Boulder, CO, United States Jan. 2022-May 2022

#### Teaching Assistant, BAIM 3200 Business Analytics

Leeds School of Business, University of Colorado Boulder

Boulder, CO, United States *Aug. 2021-Dec. 2021* 

#### **Professional Experience**

#### **NLP Research Intern**

Boulder, CO, United States

Natural Language Understanding Team, Nuance Communications, Inc. Jun. 2019-Aug. 2019

#### **Service**

#### Reviewer

- Academy of Management Annual Conference (AOM 2024, 2025)
- European Conference on Information Systems (ECIS 2024)
- The International Conference on Information Systems (ICIS 2024, 2025)
- Hawaii International Conference on System Sciences (HICSS 2025, 2026)

#### **Organizer**

 Professional Development Workshop (PDW): "Design Research on Artificial Intelligence: Challenges, Opportunities and Frontiers", Academy of Management (AOM) 2025. Denmark, Copenhagen

#### **Awards and Honors**

- AOM CTO Division Doctoral Consortium, 2025. Denmark, Copenhagen
- AMCIS Doctoral Consortium, 2025. Montreal, Canada
- Leeds School of Business Summer Hart Fellowship, 2024
  - o Competitive doctoral fellowship supporting faculty-mentored research
- Leeds School of Business Summer Hart Fellowship, 2023
  - o Competitive doctoral fellowship supporting faculty-mentored research
- International Conference on Design Science Research in Information Systems and

#### Technology (DESRIST) Doctoral Consortium, 2021. Virtually

#### Skills

Programming: Python | R | Java | SQL | JavaScript

Languages: English (Fluent) | Mandarin (Native) | French (Fluent)

#### **Professional Memberships**

Association for Information Systems (AIS) Academy of Management (AOM) Institute for Operations Research and the Management Sciences (INFORMS)

#### References

Kai R. Larsen Professor of Information Systems Leeds School of Business University of Colorado Boulder Boulder, CO 80309

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David G. Dobolyi Assistant Professor of Information Systems Leeds School of Business University of Colorado Boulder Boulder, CO 80309

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