

CAMPUS:

Kent Ridge campus,
National University of
Singapore

Wei Li

HPC-AI Lab, School of Computing National
University of Singapore, 13 Computing Drive
Singapore 117417

PERMANENT:

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EDUCATION

Ph.D. in Computer Science, Graduated in January 2024.

Nanyang Technological University, 50 Nanyang Ave, Singapore 639798

With a major GPA of 4.75 on a 5 scale

Master of Science in Management Science and Engineering, June 2018

University of Chinese Academy of Sciences, Haidian District, Beijing

Graduated with a major GPA of 86.50 on a 100 scale

Bachelor of Science in Industrial Engineering, June 2015

Shanghai Jiao Tong University, Minhang District, Shanghai

Graduated with a major GPA of 85.54 on a 100 scale

Study in School of Life Science and Biotechnology, September 2011 - July 2012

Shanghai Jiao Tong University, Minhang District, Shanghai

RESEARCH INTEREST

Sentiment Analysis in Conversations, Emotion-cause Pair Extraction, Explainable AI,
Safety in LLMs, Knowledge Editing in LLMs, Persona-based Dialogue Generation

Citations: 1064, h-index 13

PROFESSIONAL EXPERIENCE

Research Assistant, September 2016 – September 2017, September 2017 – June 2018

Key Laboratory of Big Data Mining and Knowledge Management, Chinese Academy of Sciences, Beijing, China

- Assist professors in concluding report of the research project supported by the National Natural Science Foundation of China No.71110107026 related to Data Mining and Machine Learning

Research Assistant, Computational Intelligence Lab, School of Computer Science and Engineering, Nanyang Technological University, Singapore, Aug. 2018 – Oct. 2018

- Sentiment analysis application and development in tourism (Under the supervision of Prof. Erik Cambria)
- Stock trading rule discovery with double deep Q-network

Research Student, Agency for Science, Technology and Research, Singapore, July 2019 – Sep 2023

- Human-Robot Collaborative AI for Advanced Manufacturing and Engineering (AME) WP4: Commonsense Knowledge

Research Fellow, HPC-AI Lab, School of Computing National University of Singapore, Sep 2023 – Current

- Study on the safety of Large Language Models in ethics and social bias
- Large Language Model application in cognition and psychology
- Knowledge editing on Large language Models

ACTIVITIES

- Invited Participant, the 37th AAI Conference on Artificial Intelligence (AAAI 2023), Washington, DC, USA, Feb 7-14, 2023
- Invited Participant, the 61th Annual Meeting of the Association for Computational Linguistics (ACL 2023), Toronto, Canada, July 9-14, 2023
- Invited Participant, 4th IEEE International Conference on Industrial Economics System and Industrial Security Engineering (IEIS' 2017), Kyoto, Japan, July 2017
- Invited Participant, Computational Finance and Business Intelligence (CFBI 2017) Workshop on International Conference on Computational Science (ICCS 2017), Zurich, Switzerland.
- Invited Participant, the 4th International Conference on Data Science (ICDS 2017), China.
- Volunteer, International Conference on Computational Science (ICCS 2018), Wuxi, China.

AWARDS and HONORS

- Best Paper Award in ITQM 2017, December 2017
- Academic Scholarship of the University Chinese Academy of Sciences, September 2015, September 2016, September 2017
- Excellent Students Awards, June 2017
- National Grants, September 2015, September 2016
- National Encouragement Scholarship, September 2011 - June 2015
- The Third Grade Scholarship of Shanghai Jiao Tong University, September 2013
- Sun Hung Kai Properties Grant, November 2011 - June 2013

PROGRAM COMMITTEES

- The 5th International Conference on Information Technology and Quantitative Management (ITQM 2017), (conference affairs committee)
- The 9th KDD Workshop on Issues of Sentiment Discovery and Opinion Mining.

REVIEWER

- Knowledge-Based Systems (Outstanding Contribution in Reviewing), **SCI**
- IEEE Transactions on Neural Networks and Learning Systems, **SCI**
- Neural Networks, Information Fusion, Neurocomputing, **SCI**
- Cognitive Computation, IEEE Computational Intelligence Magazine, **SCI**
- EMNLP, COLING, AAI, ACL, EACL, ICLR, ICML, NeurIPS, **Conference**

TEACHING ASSISTANT

- Introduction to Computational Thinking (CE1003)
 - Mentoring undergraduate students in Lab class and quiz session relevant to C++ and Python programming languages.
- Human Computer Interaction (CE2004)
 - Mentoring undergraduate students in Lab class relevant to an indoor navigation project.
- Artificial Intelligence (CZ3005)
 - Mentoring undergraduate students in Lab class and quiz session.
- PROBABILITY & STATISTICS FOR COMPUTING (CE2100)
 - Teaching tutorial sessions for undergraduate students on probability & statistics.
- Introduction to Computational Thinking & PRO (SC1003)
 - Mentoring undergraduate students in tutorial & Lab sessions relevant to C++, Python.

PUBLICATIONS

Journal Articles

- J1. Li W., Shao W., Ji S., Cambria E. BiERU: Bidirectional emotional recurrent unit for conversational sentiment analysis. *Neurocomputing*. 2022 Jan 7;467:73-82. (IF 5.779)
- J2. Li W., Zhu L., Cambria E. Taylor's theorem: A new perspective for neural tensor networks. *Knowledge-Based Systems*. 2021 Sep 27;228:107258. (IF 8.139)
- J3. Li, W., Li, Y., Pandelea V., Ge M., Zhu L. and Cambria E. ECPEC: Emotion-Cause Pair Extraction in Conversations (SCI, *IEEE Transactions on Affective Computing*, IF 13.99)
- J4. Mao, R., Liu, Q., He, K., Li, W., and Cambria E. The Biases of Pre-trained Language Models: An Empirical Study on Prompt-based Sentiment Analysis and Emotion Detection. (SCI, *IEEE Transactions on Affective Computing*, IF 13.99)
- J5. Zhu L., Li W., Mao R., Cambria E. HIPPL: Hierarchical Intent-inferring Pointer Network with Pseudo Labeling for Consistent Persona-driven Dialogue Generation (SCI, *IEEE Computational Intelligence Magazine*, IF 9.809)
- J6. Shi Y., Li W., Zhu L., Guo K., Cambria E. Stock trading rule discovery with double deep Q-network. *Applied Soft Computing*. 2021 Aug 1;107:107320. (IF 8.263)
- J7. Zhu L., Li W.*, Shi Y., Guo K. SentiVec: learning sentiment-context vector via kernel optimization function for sentiment analysis. *IEEE Transactions on Neural Networks and Learning Systems*. 2020 Jul 16;32(6):2561-72. (Corresponding Author, IF 14.26)
- J8. Li, W., Zhu, L., Shi, Y., Guo, K. and Cambria E, 2020. User reviews: Sentiment analysis using lexicon integrated two-channel CNN-LSTM family models. *Applied Soft Computing*, p.106435. (SCI, IF 5.472)
- J9. Li W., Guo K., Shi Y., et al. DWWP: Domain-specific New Words Detection and Word Propagation System for Sentiment analysis in the Tourism Domain[J]. *Knowledge-Based Systems*, 2018. (SCI)
- J10. Shi, Y., Zhu, L., Li, W.*, Guo, K. and Zheng, Y., 2019. Survey on classic and latest textual sentiment analysis articles and techniques. *International Journal of Information Technology & Decision Making*, 18(04), pp.1243-1287. (SCI, Corresponding author, IF 3.508)
- J11. Li, W., Zhu, L., Guo, K., Shi, Y. and Zheng, Y., 2018. Build a tourism-specific sentiment lexicon via word2vec. *Annals of Data Science*, 5(1), pp.1-7.
- J12. Mao, R., Ge, M., Han, S., Li, W., He, K., Zhu, L. and Cambria, E., 2024. A survey on pragmatic processing techniques. *Information Fusion*, p.102712. (SCI, IF 14.7)
- J13. Lin, R., Zheng, Z., Li W., and You, Y., Can Large Language Models Reliably Extract Drug-Drug Interaction Relations from Biomedical Literature? (SCI, Under Review at Journal of the American Medical Informatics Association, IF 4.7).
- J14. Xie, Y., Mao, R., Li, W., Qazi, A., and Cambria, E., A Discourse Structure- and Interlocutor-Guided Fusion Network for Dialogue Act Recognition and Sentiment Classification. (Under Review at *IEEE Transactions on Affective Computing*, IF 13.99)

Conference Articles

- C1. Li, W., Zhu, L., Song, Y., Lin, R., Mao, R., and You, Y., Can a large language model be a gaslighter? (Accepted by ICLR 2025).
- C2. Li W., Zhu L., Mao R., Cambria E. SKIER: A Symbolic Knowledge Integrated Model for Conversational Emotion Recognition. (AAAI2023)
- C3. Li W., Zhu, L., Pu S., Song Y., Ng W., and You, Y., ACE: Adaptive Concept Editing on Large Language Models. (Submitted to ICML 2025)
- C4. Zhu L., Li W., Mao R., Pandelea V., Cambria E. PAED: Zero-Shot Persona Attribute Extraction in Dialogues. (ACL2023)
- C5. Li W., Zhu L., Shao W., Yang Z., Cambria E. Task-Aware Self-Supervised Framework for Dialogue Discourse Parsing. (Accepted as an EMNLP 2023 Finding Paper)

- C6. Shi, Y., Zheng, Y., Guo, K., **Li, W.**, & Zhu, L. (2018, June). Word Similarity Fails in Multiple Sense Word Embedding. In *International Conference on Computational Science* (pp. 489-498). Springer, Cham. (ICCS 2018, EI)
- C7. **Li W.**, Guo K., Shi Y., et al. Improved New Word Detection Method Used in Tourism Field[J]. *Procedia Computer Science*, 2017, 108:1251-1260. (ICCS2017, EI)
- C8. Zheng, Y., Shi, Y., Guo, K., **Li, W.**, & Zhu, L. (2017, July). Enhanced word embedding with multiple prototypes. In *Industrial Economics System and Industrial Security Engineering (IEIS'2017), 2017 4th International Conference on* (pp. 1-5). IEEE. (IEIS2017, EI)
- C9. Zhu, L., **Li, W.**, Guo, K., Shi, Y., & Zheng, Y. (2017). The Tourism-Specific Sentiment Vector Construction Based on Kernel Optimization Function. *Procedia computer science*, 122, 1162-1167. (ITQM2017 Best paper, EI)