Zijing Shi

Australian Artificial Intelligence Institute (AAII)
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Research interests
Natural language processing (NLP), reinforcement learning (RL)

Education

University of Technology Sydney — Sydney, Australia
Ph.D. in Computer Science — Mar. 2022 – Present
Mentors: Prof. Ling Chen, Dr. Zuo Hua

Shanghai University — Shanghai, China
M.Sc. in Management Science and Engineering — Sept. 2018 – June 2021
Mentor: Dr. Nan Jing

Shanghai Maritime University — Shanghai, China
B.Sc. in Management Science and Engineering — Sept. 2014 – June 2018

Publications (conference)

CHBias: Bias Evaluation and Mitigation of Chinese Conversational Language Models
Jiaxu Zhao, Meng Fang, **Zijing Shi**, Yitong Li, Ling Chen, Mykola Pechenizkiy.
The 61st Annual Meeting of the Association for Computational Linguistics (ACL), 2023.
(The link will be released soon)

Stay Moral and Explore: Learn to Behave Morally in Text-based Games
Zijing Shi*, Meng Fang*, Yunqiu Xu, Ling Chen, Yali Du.
The 11th International Conference on Learning Representations (ICLR), 2023.
https://openreview.net/forum?id=CtS2Rs_aYk

Self-imitation Learning for Action Generation in Text-based Games
Zijing Shi, Yunqiu Xu, Meng Fang, Ling Chen.
The 17th Conference of the European Chapter of the Association for Computational Linguistics (EACL), 2023.
https://aclanthology.org/2023.eacl-main.50/

Human-Guided Moral Decision Making in Text-based Games
Zijing Shi, Meng Fang, Ling Chen, Yali Du, Jun Wang.
The 37th Conference on Neural Information Processing Systems (NeurIPS), 2023.
(Under review)

More than Minorities and Majorities: Understanding Multilateral Bias in Language Generation

Jiaxu Zhao, Yitong Li, **Zijing Shi**, Yulong Pei, Ling Chen, Mykola Pechenizkiy, Meng Fang.

The European Conference on Machine Learning and Principles and Practice of Knowledge Discovery in Databases (ECML-PKDD), 2023.

(Under review)

<div style="display: flex"><div style="color: green">Publications
(journal)</div></div>

Cross-sectional Analysis and Data-driven Forecasting of Confirmed COVID-19 Cases

Nan Jing, **Zijing Shi**, Yi Hu, Ji Yuan

Applied Intelligence, 2022.

https://doi.org/10.1007/s10489-021-02616-8

Forecasting High-frequency Price of Shanghai Copper Futures based on Attention Mechanism and CNN-LSTM (In Chinese)

Nan Jing, **Zijing Shi**, Yumin Shu

Chinese Journal of Management Science, 2020.

https://doi.org/10.16381/j.cnki.issn1003-207x.2020.0342

Industry experience

Peng Cheng Laboratory (PCL)   Shenzhen, China

Intern at the Department of Intelligent Computing   Sept. 2021 – Mar. 2022

I innovatively optimized investment portfolios using deep reinforcement learning and conducted in-depth analysis of multiple factors driving the cryptocurrency market.

Veighna Technology Co.   Shanghai, China

Quantitative developer intern   Jan. 2021 – May. 2021

I helped operate and upgrade Veighna software, an open-source quantitative trading system framework with 20,000+ stars on GitHub.

Research experience

Optimizing Vehicle Scheduling for Electric Logistics Distribution

Mentor: Prof. Lifeng Mu (Shanghai University)   Dec. 2018 – Apr. 2019

I analyzed factors affecting the transportation efficiency of electric vehicles and developed an enhanced algorithm to optimize their routes.

Summary of findings available here.

Optimizing Marketing Strategies for Transportation Hubs using Artificial Intelligence

Mentor: Prof. Nan Jing (Shanghai University)   Apr. 2018 – Mar. 2019

I optimized the recommendation algorithm for targeted advertising by analyzing consumer attributes and behaviors from text data.

This research was awarded as a Shanghai Soft Science Research Project.

Talks

Self-imitation Learning for Action Generation in Text-based Games

May 2023

The 17th Conference of the European Chapter of the Association for Computational Linguistics (EACL)

Honors and scholarships	Outstanding Graduate Award (Master)	2021
	China National Scholarship for Postgraduate Studies	2020
	First Prize Postgraduate Scholarship of Shanghai University	2020
	National Second Prize in the 17th China Postgraduate Mathematical Contest in Modeling	2020
	Second Prize in the Quantitative Investment Strategy Competition	2020
	Second Prize Postgraduate Scholarship of Shanghai University	2019
	National Third Prize in the 16th China Postgraduate Mathematical Contest in Modeling	2019
	First Prize Postgraduate Scholarship of Shanghai University	2018
	Outstanding Graduate Award (Bachelor)	2018
	Excellent Graduation Thesis Award (Bachelor)	2018
	First Prize Undergraduate Scholarship of Shanghai Maritime University	2017

Skills

Programming

Proficient in Python, SQL, MATLAB, TensorFlow, and PyTorch.
Familiar with Go and Java.

Languages

Fluent in English (IELTS 7.0) and Mandarin (mother tongue)

Other interests

I enjoy photography and cooking in my free time.