

RESEARCH HIGHLIGHTS

My main research focuses are on **artificial intelligence (AI)** and **spatial-temporal data mining with applications in smart cities and urban intelligence**. Particularly, I am interested in: (1) human behavior analysis, decision making and embodied AI using deep learning approaches, and (2) spatial-temporal data mining with novel AI techniques for urban computing and smart cities. My works appear in **NeurIPS**, **ICDM**, *etc.*

EDUCATION

Worcester Polytechnic Institute (WPI)

Ph.D. in Data Sciences, Advisor: Dr. Yanhua Li, GPA: 4.00/4.00

Worcester, MA

2019–May. 2023 (Expected)

Worcester Polytechnic Institute (WPI)

M.S. in Data Sciences, GPA: 4.00/4.00

Worcester, MA

2017–2019

University of Illinois at Urbana-Champaign (UIUC)B.S. in Applied Mathematics, GPA: 3.90/4.00 ([University Honors of Bronze Tablet](#))

Urbana-Champaign, IL

2013–2017

PUBLICATIONS

I authored 9 publications in top AI and data science conferences and journals such as **NeurIPS(1)**, **ICDM(3)**, **WACV(1)**, **SDM(1)**, **CDC(1)**, **SIGSPATIAL(1)**, **IEEE TBD(1)**, *etc.* * Represents a co-first author.

- [1] [[SDM'23](#)] **Xin Zhang**, Yanhua Li, Ziming Zhang, Zhi-Li Zhang, *Domain Disentangled Meta-Learning*. SIAM International Conference on Data Mining, Minneapolis, Minnesota, Apr 27 - Apr 29, 2023.
- [2] [[WACV'23](#)] Guojun Wu, **Xin Zhang**, Ziming Zhang, Yanhua Li, Xun Zhou, Christopher Brinton, and Zhenming Liu, *Learning Lightweight Neural Networks via Channel-Split Recurrent Convolution*. Winter Conference on Applications of Computer Vision 2023, Waikoloa, Hawaii, Jan 3 - Jan 7, 2023.
- [3] [[ICDM'21](#)] **Xin Zhang**, Yanhua Li, Xun Zhou, Oren Mangoubi, Ziming Zhang, Vincent Filardi, and Jun Luo, *DAC-ML: Domain Adaptable Continuous Meta-Learning for Urban Dynamics Prediction*. IEEE International Conference on Data Mining, Auckland, New Zealand, Nov 7 - Nov 10, 2021.
- [4] [[CDC'21](#)] **Xin Zhang***, Weixiao Huang*, Yanhua Li, Renjie Liao, and Ziming Zhang, *Imitation Learning From Inconcurrent Multi-Agent Interactions*. The 60th IEEE Conference on Decision and Control (CDC 2021), Austin, TX on Dec 13 - Dec 15, 2021.
- [5] [[SIGSPATIAL GIS'21](#)] **Xin Zhang***, Menghai Pan*, Yanhua Li, Xun Zhou, and Jun Luo, *Learning Decision Making Strategies of Non-experts: A NEXT-GAIL Model for Taxi Drivers*. The 29th ACM SIGSPATIAL International Conference on Advances in Geographic Information Systems, Beijing, China, Nov 2 - Nov 5, 2021.
- [6] [[NeurIPS'20](#)] **Xin Zhang**, Yanhua Li, Ziming Zhang, and Zhi-Li Zhang, *f-GAIL: Learning f-Divergence for Generative Adversarial Imitation Learning*. 34th Conference on Neural Information Processing Systems (NeurIPS), Virtual Conference, Dec 6 - Dec 12, 2020.

- [7] **[ICDM'20] Xin Zhang**, Yanhua Li, Xun Zhou, Ziming Zhang, and Jun Luo, *Traj-GAIL: Trajectory Generative Adversarial Imitation Learning for Long-term Decision Analysis*. IEEE International Conference on Data Mining (ICDM), Sorrento, Italy, Nov 17 - Nov 20, 2020.
- [8] **[TBD] Xin Zhang**, Yanhua Li, Xun Zhou, and Jun Luo, *cGAIL: Conditional Generative Adversarial Imitation Learning—An Application in Taxi Drivers' Strategy Learning*. IEEE Transactions on Big Data, Accepted for publication, 2020.
- [9] **[ICDM'19] Xin Zhang**, Yanhua Li, Xun Zhou, and Jun Luo, *Unveiling Taxi Drivers' Strategies via cGAIL - Conditional Generative Adversarial Imitation Learning*. IEEE International Conference on Data Mining, Beijing, China, Nov 8 - Nov 11, 2019.

CONFERENCE PRESENTATIONS

Winter Conference on Applications of Computer Vision (WACV) Conference Presenter	Waikoloa, HI, Jan. 2023
IEEE International Conference on Data Mining (ICDM) Conference Presenter	Virtual event, Nov. 2021
IEEE International Conference on Decision and Control (CDC) Conference Presenter	Virtual event, Dec. 2021
International Conference on Advances in Geographic Information Systems Conference Presenter	Beijing, Nov. 2021
Conference on Neural Information Processing Systems (NeurIPS) Poster Presenter	Virtual event, Dec. 2020
IEEE International Conference on Data Mining (ICDM) Conference Presenter	Virtual event, Nov. 2020

TEACHING

Big Data Management (DS503) – 39 Students Teaching Assistant	Fall 2022 <i>Data Science Department, WPI</i>
Reinforcement Learning (DS 595) – 60 Students Guest Lecturer	Fall 2019 <i>Data Science Department, WPI</i>
Introduction to Computer Science (CS125) – 50 Students Course Assistant	Fall 2016 <i>Computer Science Department, UIUC</i>

ACADEMIC SERVICES

Technical Program Committee

International Conference on Machine Learning (ICML 2022, ICML 2023)
 The Thirty-sixth Conference on Neural Information Processing Systems (NeurIPS 2022)
 The Thirty-Sixth AAAI Conference on Artificial Intelligence (AAAI 2022)

Reviewer

NeurIPS(2020-2022), ICML (2020-2022), ICLR 2021, CVPR (2020, 2022), AAAI (2020-2022), IJCAI (2019-2021), KDD (2020-2022), WWW 2021, CIKM 2020, ICDM (2020-2021), SIGSPATIAL (2019, 2021).

Journal Reviewer

IEEE Transactions on Big Data (TBD) 2020

SCHOLARSHIPS AND AWARDS

- 2nd Place Graduate Research Innovation Exchange (GRIE) Poster Competition - WPI 2021
- 34th NeurIPS Student Registration Award 2020
- 20th ICDM Student Registration Award 2020
- 3rd Place Graduate Research Innovation Exchange (GRIE) Poster Competition - WPI 2019
- University Honors of Bronze Tablet - UIUC 2017

TECHNICAL SKILLS

Programming

Python, Java, C++, R, MATLAB, Linux, L^AT_EX.

Frameworks

PyTorch, TensorFlow.

REFERENCES

Zhi-Li Zhang

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