

JIAXUAN WANG

Tel: (734) 834-7996

E-mail: jiaxuan@umich.edu

Website: nathanwang000.github.io

EDUCATION

Ph.D. at the University of Michigan, Ann Arbor

Sep 2017-April 2022

Computer Science and Engineering

Advisor: [Jenna Wiens](#)

GPA: 4.00 / 4.00

Research interests: Model interpretability; Time-series analysis; Transfer/multitask learning; Non convex optimization; Feature selection; Temporal conditional shift; Computer vision; Deep reinforcement learning; Causal inference; Basketball analytics

Computational skills: PyTorch; Python; C++; Javascript; Matlab; R;

Bachelors of Science in Engineering, Ann Arbor

Sep. 2013 - Dec. 2016

Computer Science major and Mathematics minor

GPA: 3.96 / 4.00

Directed research: Computer vision; Basketball analytics

EMPLOYMENT

Research scientist in machine learning, Meta

Jun. 6 2022 - Present

Worked on the intervention team to develop a reinforcement learning agent to protect user data by selecting appropriate actions on potential scrappers (e.g., blocking, reCAPTCHA or SMS challenges). Proposed and implemented a feature attribution framework to debug and monitor distribution shift for the reinforcement learning agent used in production.

Research Intern, Adaptive Systems and Interaction Group, Microsoft Research

Jun. 1 - Aug.21 2020

Mentor: [Scott Lundberg](#)

Proposed a novel explanation method, Shapley Flow, that unifies and avoids the pitfall of 3 previous methods.

Software Engineering Intern, NLP group, Bloomberg L.P. (New York)

Jun. 7 - Aug.19 2016

Mentors: [Konstantine Arkoudas](#) and [Srivas Prasad](#)

Algorithms for natural language parsing in financial chart domain: C++; SVM; PCFG

Research Assistant, Computer vision lab, University of Michigan

Oct. 2014 - Jan. 2016

Advisor: [Jia Deng](#)

Focus: Human action dataset collection; Amazon Mechanical Turk; Feature extraction; Rotation equivariant network

PUBLICATIONS (* denotes equal contribution)

1. [Learning Concept Credible Models for Mitigating Shortcuts](#)

Jiaxuan Wang, Sarah Jabbour, Maggie Makar, Jenna Wiens

Proceedings of the 36th Conference on Neural Information Processing Systems (NeurIPS), 2022

2. [Shapley Flow: A Graph-based Approach to Interpreting Model Predictions](#)

Jiaxuan Wang, Jenna Wiens, Scott Lundberg

Proceedings of the 24th International Conference on Artificial Intelligence and Statistics (AISTATS), 2021

3. [AdaSGD: Bridging the gap between SGD and Adam](#)

Jiaxuan Wang, Jenna Wiens
arXiv preprint, 2020

4. [Relaxed Parameter Sharing: Effectively Modeling Time-Varying Relationships in Clinical Time-Series](#)

Jeeheh Oh*, **Jiaxuan Wang***, Shengpu Tang, Michael Sjoding, Jenna Wiens
In Proceedings of the 4th Machine Learning for Healthcare Conference, 2019

5. [Learning Credible Models](#)

Jiaxuan Wang, Jeeheh Oh, Haozhu Wang, Jenna Wiens
ACM SIGKDD Conference on Knowledge Discovery and Data Mining, 2018

6. [The Advantage of Doubling: A Deep Reinforcement Learning Approach to Studying the Double Team](#)

Jiaxuan Wang*, Ian Fox*, Jonathan Skaza, Nick Linck, Satinder Singh, Jenna Wiens
MIT Sloan Sports Analytics Conference, 2018

7. [Learning to Exploit Invariances in Clinical Time-Series Data using Sequence Transformer Networks](#)

Jeeheh Oh, **Jiaxuan Wang**, and Jenna Wiens
In Proceedings of the 4th Machine Learning for Healthcare Conference, 2018

8. [HICO: A Benchmark for Recognizing Human-Object Interactions in Images](#)

Yu-Wei Chao, Zhan Wang, Yugeng He, **Jiaxuan Wang**, Jia Deng
International Conference on Computer Vision (ICCV) 2015

UNPUBLISHED TECHNICAL REPORTS

1. [Using feature attribution to debug and monitoring distribution shift for a production ML system](#)

Jiaxuan Wang
2023

2. [Exploiting Spatial and Temporal Invariances when Mining Player Tracking Data in Basketball](#)

Jiaxuan Wang*, Fahad Kamran*, Haozhu Wang*, Jenna Wiens
2019

SERVICES

Reviewer @ AISTATS 2022
Reviewer @ ICLR 2022
Reviewer @ AISTATS 2021
Reviewer @ NeurIPS 2020
Reviewer @ NeurIPS 2019
Reviewer @ MLHC 2021
Reviewer @ MLHC 2020
Volunteer @ Michigan AI symposium 2020
Reviewer @ SSAC 2020
Reviewer @ MLHC 2019
Reviewer @ SSAC 2019
Volunteer @ Michigan AI symposium 2019

INTEREST

Basketball since 3 years old

Bouldering for < 1 year

Violin since 5 years old

Guitar for 5 years