

Hua Wei

CONTACT INFORMATION	hua.wei@asu.edu	https://labs.engineering.asu.edu/hw/
CURRENT POSITION	Assistant Professor, Arizona State University School of Computing and Augmented Intelligence	Aug. 2023 - Present
EDUCATION	Pennsylvania State University Ph.D., College of Information Sciences and Technology, Pennsylvania State University • Advisor: Dr. Zhenhui (Jessie) Li	Aug. 2017 - Dec. 2020
RESEARCH INTERESTS	Reinforcement Learning, Uncertainty Quantification, Spatio-temporal Data Mining.	
SELECTED PUBLICATIONS	(* represents students mentored by me) [C1]: Longchao Da*, T Pranav Kutralingam, Lirong Xiang, Hua Wei . Latent Adaptation of Foundation Policies for Sim-to-Real Transfer. In the Fourteenth International Conference on Learning Representations (ICLR'26). April 2026. [C2]: Rana Shahroz, Zhen Tan, Ruichen Zhang, Hua Wei, Tianlong Chen, Charles Fleming. CAR-LoRA: Training Compression-Aware and Robust LoRA Adapters for Evolving LLMs. In the Fourteenth International Conference on Learning Representations (ICLR'26). April 2026. [C3]: Huaiyuan Yao*, Wanpeng Xu*, Justin Turnau, Nadia Kellam, Hua Wei . Instructional Agents: Reducing Teaching Faculty Workload through Multi-Agent Instructional Design. In the 19th Conference of the European Chapter of the Association for Computational Linguistics (EACL'26 Main Conference). March 2026. [C4]: Tiejun Chen*, Kaishen Wang*, Hua Wei . Zer0-Jack: A memory-efficient gradient-based jailbreaking method for black box Multi-modal Large Language Models. In the 19th Conference of the European Chapter of the Association for Computational Linguistics (EACL'26 Main Conference). March 2026. [C5]: Tiejun Chen*, Xiaoou Liu, Vishnu Nandam, Kuan-Ru Liou, Hua Wei . Conformal Feedback Alignment: Quantifying Answer-Level Reliability for Robust LLM Alignment. In the 19th Conference of the European Chapter of the Association for Computational Linguistics (EACL'26 Findings). March 2026. [C6]: Longchao Da*, David Isele, Hua Wei, Manish Saroya. Measuring What Matters: Scenario-Driven Evaluation for Trajectory Predictors in Autonomous Driving. In Proceedings of the Fourtieth AAAI Conference on Artificial Intelligence (AAAI'26). Feb 2026. [C7]: Longchao Da*, Xiaoou Liu, Jiaxin Dai, Lu Cheng, Yaqing Wang, Hua Wei . Understanding the Uncertainty of LLM Explanations: A Perspective Based on Reasoning Topology. In Proceedings of the Second Conference on Language Modeling (COLM'25). Oct 2025. [C8]: Tiejun Chen*, Pingzhi Li, Kaixiong Zhou, Tianlong Chen, Hua Wei . Unveiling Privacy Risks in Multi-modal Large Language Models: Task-specific Vulnerabilities and Mitigation Challenges. Findings of the Association for Computational Linguistics ACL 2025 (ACL'25 Findings). July 2025.	

- [C9]: Tiejin Chen*, Pingzhi Li, Kaixiong Zhou, Tianlong Chen, **Hua Wei**. Vision Language Model Helps Private Information De-Identification in Vision Data. Findings of the Association for Computational Linguistics ACL 2025 (**ACL’25 Findings**). July 2025.
- [C10]: Justin Turnau*, Longchao Da, Khoa Vo, Ferdous Al Rafi, Shreyas Bachiraju, Tiejin Chen, **Hua Wei**. Joint-Local Grounded Action Transformation for Sim-to-Real Transfer in Multi-Agent Traffic Control. In Proceedings of the 2nd Reinforcement Learning Conference (**RLC’25**). Aug 2025.
- [C11]: Spencer Young, Porter Jenkins, Longchao Da, Jeff Dotson, **Hua Wei**. Fully Heteroscedastic Count Regression with Deep Double Poisson Networks. In the Proceedings of the 42nd International Conference on Machine Learning (**ICML’25**). July 2025.
- [C12]: Longchao Da*, Xiangrui Liu, Mithun Shivakoti, Thirulogasankar Pranav Kutralingam, Yezhou Yang, **Hua Wei**. DeepShade: Enable Shade Simulation by Text-conditioned Image Generation, in Proceedings of the Thirty-Fourth International Joint Conference on Artificial Intelligence (**IJCAI’25**).
- [C13]: Jiaxing Zhang*, Xiaoou Liu, Dongsheng Luo, **Hua Wei**. Is Your Explanation Reliable: Confidence-Aware Explanation on Graph Neural Networks. In the Proceedings of the 31st ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (**KDD’25**). Aug 2025.
- [C14]: Xiaoou Liu*, Tiejin Chen*, Longchao Da, Chacha Chen, Zhen Lin, **Hua Wei**. Uncertainty Quantification and Confidence Calibration in Large Language Models: A Survey. In the Proceedings of the 31st ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (**KDD’25**, Survey Track). Aug 2025.
- [C15]: Yiran Zhang*, Khoa Vo, Longchao Da, Tiejin Chen, Xiaoou Liu, **Hua Wei**. Reproducible and Low-cost Sim-to-real Environment for Traffic Signal Control. In the International Conference on Cyber-Physical Systems (**ICCPs’25**). May 2025.
- [C16]: Tianshu Bao, Xiaoou Liu*, Meiyi Ma, Taylor T Johnson, **Hua Wei**. Uncertainty Quantification for Physics-Informed Traffic Graph Networks. In the International Conference on Cyber-Physical Systems (**ICCPs’25**). May 2025.
- [C17]: Huaiyuan Yao*, Longchao Da*, Vishnu Nandam, Justin Turnau, Zhiwei Liu, Linsey Pang, **Hua Wei**. CoMAL: Collaborative Multi-Agent Large Language Models for Mixed-Autonomy Traffic. In Proceedings of SIAM International Conference on Data Mining (**SDM’25**). May 2025.
- [C18]: Tiejin Chen*, Longchao Da, Huixue Zhou, Pingzhi Li, Kaixiong Zhou, Tianlong Chen, **Hua Wei**. Protecting Privacy against Membership Inference Attack with LLM Fine-tuning through Flatness. In Proceedings of SIAM International Conference on Data Mining (**SDM’25**). May 2025.
- [C19]: Jiaxing Zhang*, Zhuomin Chen, Hao Mei, Dongsheng Luo, **Hua Wei**. RegExplainer: Generating Explanations for Graph Neural Networks in Regression Tasks. In Proceedings of the 28th Conference on Neural Information Processing Systems (**NeurIPS’24**). Dec 2024.
- [C20]: Longchao Da*, Rohan Chhibba, Rushabh Jaiswal, Ariane Middel, **Hua Wei**. Shaded Route Planning Using Active Segmentation and Identification of Satellite Images. In Proceedings of 33rd ACM International Conference on Information and Knowledge Management (**CIKM’24**). Nov 2024.

- [C21]: Tiejin Chen*, Prithvi Parag Shirke*, Bharatesh Chakravarthi, Arpitsinh Rohitkumar Vaghela, Longchao Da, Duo Lu, Yezhou Yang, **Hua Wei**. SynTraC: A Synthetic Dataset for Traffic Signal Control from Traffic Monitoring Cameras. In Proceedings of 27th IEEE International Conference on Intelligent Transportation Systems (**ITSC'24**). Sep 2024.
- [C22]: Longchao Da*, Chen Chu, Weinan Zhang, **Hua Wei**. CityFlowER: An Efficient and Realistic Traffic Simulator with Embedded Machine Learning Models. In Proceedings of the European Conference on Machine Learning and Principles and Practice of Knowledge Discovery in Databases 2024 (**ECML-PKDD'24**), Sep 2024.
- [C23]: Longchao Da*, Kuanru Liou, Tiejin Chen, Xuesong Zhou, Xiangyong Luo, Yezhou Yang, **Hua Wei**. Open-TI: Open Traffic Intelligence with Augmented Language Model. International Journal of Machine Learning and Cybernetics (**IJMLC**, IF: 5.6).
- [C24]: Aayush Atul Verma, Bharatesh Chakravarthi, Arpitsinh Vaghela, **Hua Wei**, Yezhou Yang. 2024. eTraM: Event-based Traffic Monitoring Dataset. In Conference on Computer Vision and Pattern Recognition 2024 (**CVPR 2024 Spotlight**).
- [C25]: Longchao Da*, Minchiuan Gao, Hao Mei, **Hua Wei**. 2024. Prompt to transfer: Sim-to-real Transfer for Traffic Signal Control with Prompt Learning. In Proceedings of the Thirty-Eighth AAAI Conference on Artificial Intelligence (**AAAI 2024**), Feb 2024. (Oral Presentation)
- [C26]: Longchao Da*, Porter Jenkins, Trevor Schwantes, Jeffrey Dotson, **Hua Wei**. 2024. Probabilistic Offline Policy Ranking with Approximate Bayesian Computation. In Proceedings of the Thirty-Eighth AAAI Conference on Artificial Intelligence (**AAAI 2024**), Feb 2024.

TEACHING

- “CSE475 - Foundations of Machine Learning”, ASU. 2025 Fall
- “CSE572 - Data Mining”, ASU. 2023/2024 Fall&2024/2025/2026 Spring
- “IS657 - Spatio-temporal Urban Analytics ”, NJIT. 2022 Fall
- “IS392 - Web Mining and Information Retrieval ”, NJIT. 2022&2023 Spring

Tutorial:

- Arizona Department of Transportation: AI in Transportation.
- The 31st ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD 2025): Uncertainty Quantification and Confidence Calibration for Large Language Model.
- The 26rd IEEE International Conference on Intelligent Transportation Systems (ITSC 2023): Cross-simulator Datasets and Evaluations for Traffic Control Policies.
- The 23rd IEEE International Conference on Intelligent Transportation Systems (ITSC 2020): Deep Reinforcement Learning for Traffic Signal Control.

Invited Talks:

- Building & Demonstrating an AI-Enhanced Decision-Making Workflow.
 - Maricopa County Association, July 2025.
 - Arizona Department of Transportation, Mar 2025.
- Rethinking Evaluation for Agentic AI: Lessons from Transportation and Education.
 - Agentic & GenAI Evaluation KDD2025: KDD workshop on Evaluation and Trustworthiness of Agentic and Generative AI Models, Mar 2025.
- Toward Decision Making with AI Agents: From Trustworthy to Actionable.
 - ASU School of Math and Natural Sciences, Mar 2025.

- UNC Chapel Hill, Mar 2025.
- Workshop on Pioneering Transportation Innovation with Generative AI, American Society of Civil Engineers (ASCE) AI in Transportation, Mar 2025.
- AI Agents for the Real World Applications.
 - Brigham Young University, Nov 2024.
 - Keynote talk @ Workshop of AI Agents for Information Retrieval, CIKM'24, Oct 2024.
- Simulation: Machine Learning from it, for it and beyond it.
 - Keynote talk @ Workshop of Advanced Modeling, Evaluation, and Simulation of Interactions in Mixed Traffic Comprising Pedestrians, Automated Vehicles, and Human-driven Vehicles, ITSC'24, Sep 2024.
- Learning to Generate with Small Data
 - INFORMS, Oct 2023
 - Keynote talk @ The 4th International Workshop on Data-Centric AI, CIKM'24, Oct 2024
- On the Possibilities of Large Language Models for Transportation
 - Discover the “Pathways to the Future” NSF Workshop, Oct 2023
- Intelligent Decision Making for Urban Systems
 - Lawrence Berkeley National Laboratory, Sep. 2020
 - Urban Intelligence, Penn State IST 510, April 2020
- Reinforcement Learning for Urban Traffic Signal Control
 - University of Massachusetts Boston, Feb 2023.
- Reinforcement Learning: An Introduction, Penn State IST 557, Oct. 2019
- Learning with Small Data, DaML Research, Penn State, Sep. 2019
- Overview of Data Mining and Machine Learning, GEOSC/GEOG 497, Penn State, Sep. 2019

PROFESSIONAL
SERVICES

Conference Organizer:

- IEEE BigData 2026, Workshop Chair
- SDM 2025, Workshop Chair
- WSDM 2022, Chair of “Smart City Day”

Workshop Organizer:

- Workshop on Uncertainty Reasoning and Quantification in Decision Making, 2024 & 2025.
- Workshop on Metacognitive Prediction of AI Behavior: 2023.
- Workshop on DeepLearning-Hardware Co-Design for AI Acceleration: 2023, 2024.
- Workshop on Data-Driven Intelligent Transportation: 2018, 2019, 2022.
- Workshop on Prescriptive Analytics for the Physical World: 2020.

Challenge Organizer:

- KDD Cup City Brain Challenge, 2021.
- Challenge on Mobility Intervention for Epidemics, 2020.

Journal Reviewer

- IEEE Transactions on Intelligent Systems and Technology (TIST)
- IEEE Transactions on Knowledge and Data Engineering (TKDE)
- IEEE Transactions on Intelligent Transportation Systems (TITS)
- Transportation Research Part C (TR-C)

Conference Reviewer/PC/SPC Member: (a partial list)

- AAAI'18-26, KDD'18-26, IJCAI'18-26, NeurIPS'20-25, ICML'21-26, ITSC'21-25, CIKM'18-25, ICLR'20-26.