

Zhuoyuan “Jacob” WANG

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EDUCATION

Carnegie Mellon University Feb 2021 – Present
Ph.D. (expected), Electrical and Computer Engineering, QPA: 3.86/4.0.

Tsinghua University Sep 2016 – Jun 2020
B.E., Automation, GPA: 3.73/4.0, ranked 17/164.

RESEARCH INTERESTS

Control theory, Machine learning, Safety-critical Control, Robotic systems.

SELECTED PUBLICATIONS

Wang, Z., Keller, R., Deng, X., Hoshino, K., Tanaka, T., & Nakahira, Y. (2024). "Physics-informed Representation and Learning: Control and Risk Quantification." Accepted at AAAI 2024.

Pandya, R.*, **Wang, Z.***, Nakahira, Y., & Liu, C. (2024). "Towards Proactive Safe Human-Robot Collaborations via Data-Efficient Conditional Behavior Prediction." Accepted at ICRA 2024.

Wang, Z., & Nakahira, Y. (2023). "A Generalizable Physics-informed Learning Framework for Risk Probability Estimation." Learning for Dynamics and Control Conference (L4DC). PMLR, 2023.

Hoshino, K., **Wang, Z.**, & Nakahira, Y. (2023). Scalable Long-term Safety Certificate for Large-scale Systems. In IEEE Control Systems Letters.

Wang, Z.*, Jing, H.*, Kurniawan, C., Chern, A., & Nakahira, Y. (2022). Myopically Verifiable Probabilistic Certificate for Long-term Safety. In 2022 American Control Conference (ACC) (pp. 4894-4900). IEEE.

Gangadhar, S.*, **Wang, Z.***, Jing, H., & Nakahira, Y. (2022). Adaptive Safe Control for Driving in Uncertain Environments. In 2022 IEEE Intelligent Vehicles Symposium (IV) (pp. 1662-1668). IEEE.

Shi, W., Huang, G., Song, S., **Wang, Z.**, Lin, T., & Wu, C. (2020). Self-supervised Discovering of Interpretable Features for Reinforcement Learning. IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI).

HONORS AND AWARDS

Michel and Kathy Doreau Graduate Fellowship at Carnegie Mellon University	2022
Mathematical Contest in Modeling (MCM) Honorable Mention	2019
Contemporary Undergraduate Mathematical Contest in Modeling (CUMCM) First Prize	2018
Tsinghua University Scholarship - Excellent Academic Performance	2018

SKILLS AND EXTRACURRICULAR

Languages: Chinese, English

Software: Python, MATLAB, Julia, LaTeX, etc.

Hobbies: Basketball (CMU club team player), Cycling.