

Zihan Yang

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About Me

I am a master's student at School of Aeronautic Science and Engineering, Beihang University, Beijing, China, supervised by Prof. Kexin Guo, Prof. Xiang Yu and Prof. Lei Guo. My research interest lies in the area of learning and robotics. I spent my time working on deep learning for planning and control, with extensions toward how control theory can be utilized for machine learning. I am working on generative models and reinforcement learning approaches for more complex tasks.

Education

Northwestern Polytechnical University , B.Eng. in Material Science and Engineering	Sept 2019 - June 2023
Queen Mary University of London B.Eng. in Material Science and Engineering (<i>Sino-foreign cooperative education</i>)	Sept 2019 - June 2023
<ul style="list-style-type: none">GPA: 3.6/4.0First Class Honors.	
Beihang University , M.S. in Aerospace Science and Technology	Sept 2023 - June 2026 (expected)
<ul style="list-style-type: none">GPA: 3.8/4.0, supervised by Prof. Kexin Guo, Prof. Xiang Yu, and Prof. Lei Guo	

Publications

(* equal contribution)

- [1] **Z. Yang**, J. Jia, M. Wang, Y. Liu, K. Guo, and X. Yu, "Towards non-structural disturbance prediction: Feedback-calibrated meta-adaptation," *Under Review*, 2025.
- [2] J. Jia*, M. Wang*, **Z. Yang**, B. Yang, Y. Liu, K. Guo, and X. Yu, "Learning-based observer for coupled disturbance," 2025.
- [3] J. Jia*, **Z. Yang***, M. Wang, K. Guo, J. Yang, X. Yu, and L. Guo, "Feedback favors the generalization of neural ODEs," in *The Thirteenth International Conference on Learning Representations*, 2025.
- [4] K. Guo*, **Z. Yang***, J. Jia, Y. Liu, and X. Yu, "Optimizing control-friendly trajectories with self-supervised residual learning," *Under Review*, 2024.
- [5] **Z. Yang**, J. Jia, Y. Liu, K. Guo, X. Yu, and L. Guo, "TRACE: Trajectory refinement with control error enables safe and accurate maneuvers," in *IEEE 18th International Conference on Control and Automation*, 2024.
- [6] X. Song, X. Guo, G. Liu, **Z. Yang**, and L. Liu, "Co-optimization of motion and energy domain for hydrogen-powered hybrid UAVs: A bi-directional coupling architecture," in *IEEE 19th International Conference on Control and Automation*, 2025.
- [7] K. Guo, Y. Liu, J. Jia, **Z. Yang**, S. Zhou, X. Yu, and L. Guo, "Flying in harsh environments: Anti-rain quantification system and control strategy," *IEEE Transactions on Industrial Electronics*, 2025.

Awards

Best Student Paper Award , <i>IEEE International Conference on Control and Automation (ICCA)</i> , Reykjavík, Iceland.	June, 2024
Bachelor of Engineering with Honors, First Class in Material Science and Engineering, Queen Mary University of London , London, UK.	June, 2023

Funds

Second-Class Scholarship Beihang University, Beijing, China.	2024
Second-Class Scholarship Beihang University, Beijing, China.	2023

Skills

Coding: Python (skilled), Matlab/Simulink (skilled), C/C++ (familiar), HTML/CSS (basic)

Language: Mandarin Chinese (native), English (fluent), Japanese (basic)

Hardware: Experienced in building quadrotor hardware modules

Misc.: Electric guitar, skiing, badminton, swimming...

Soft Skills.: Self-motivated, critical-thinking, multi-tasking, and a quick learner...