

Kefei Duan

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RESEARCH INTERESTS

Vision-Language-Action Model, Embodied Agent

EDUCATION

Washington University in St. Louis, MO, USA

Aug. 2023 - Present

PhD candidate, Major in Computer Science

Advised by [Prof. Chongjie Zhang](#)

Anticipated graduation dates: 05/2028

Peking University, Beijing, China

Sep. 2019 - Jul. 2023

Bachelor of Science in Intelligence Science and Technology

GPA: 3.741/4.0 (Rank: 10/81)

Advised by [Prof. Ming Zhang](#)

PUBLICATIONS

Heng Dong*, **Kefei Duan***, Chongjie Zhang. Enhancing Decision-Making of Large Language Models via Actor-Critic. ICML 2025.

Eric Pasewark, Kyle Montgomery, **Kefei Duan**, Dawn Song, Chenguang Wang. Re-Tuning: Overcoming the Compositionality Limits of Large Language Models with Recursive Tuning. ACL 2024.

Zequn Liu, **Kefei Duan**, Junwei Yang, Hanwen Xu, Ming Zhang, Sheng Wang. MetaFill: Text Infilling for Meta-Path Generation on Heterogeneous Information Networks. EMNLP 2022.

TECHNICAL SKILLS

Programming Languages: Python, C/C++, Matlab

Softwares/Platforms/Libraries: PyTorch

Research Tools: LaTeX, GitHub

SELF INTRODUCTION

I am currently a third-year Ph.D. student in Computer Science at Washington University in St.Louis. My research interests are Vision-Language-Action (VLA) models and embodied agents.

Building a generalizable robot policy is quite important for the real deployment of robots in reality, and VLA may be a potential direction for achieving this. However, current VLAs are still limited in their generalization ability. I would like to see how to enable VLAs with the generalization ability or there are other paths to achieve a generalizable policy. I think in the future, a general robot system should adopt a hierarchical architecture, and VLA may be a general low-level policy which can complete various skills. And to enable the generalization ability, apart from gaining more diverse training data, it is also critical to enhance models' language and vision grounding ability, making it truly understand the given instruction.