Mingdong Wu

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Education

- **Peking University** — Beijing , China
  Bachelor of Science - Turing Class of 2021, EECS; ***Summa Cum Laude*** — *July 2017 - June 2021*
  Courses: *Advanced Algebra(100/100), Discrete Mathematics(99/100), Mathematical Analysis, Convex Optimization, Data Structures, Analysis Of Algorithms, Artificial Intelligence, Machine Learning*
- **Peking University** — Beijing , China
  Turing Phd - Center on Frontiers of Computing Science; Supervised by Asst. Prof. Hao Dong — *July 2021 - present*

Publications

(*) indicates equal contribution.

- **TarGF: Learning Target Gradient Field to Rearrange Objects without Explicit Goal Specification**:
  Mingdong Wu*, Fangwei Zhong*, Yulong Xia, Hao Dong, *NeurIPS 2022*.
- **GFPose: Learning 3D Human Pose Prior with Gradient Fields**:
  Hai Ci, **Mingdong Wu**, Wentao Zhu, Xiaoxuan Ma, Hao Dong, Fangwei Zhong, Yizhou Wang, *CVPR 2023*.
- **SA2VAN: Learning Semantic-Agnostic and Spatial-Aware Representation for Generalizable Visual-Audio Navigation**:
  Hongcheng Wang, Yuxuan Wang, fangwei zhong, **Mingdong Wu**, Yizhou Wang, Hao Dong, *RAL 2023*.
- **Score-PA: Score-based 3D Part Assembly**:
  Junfeng Cheng, **Mingdong Wu**, Ruiyuan Zhang, Guanqi Zhan, Chao Wu, Hao Dong, *BMVC 2023 (Oral)*.
- **GenPose: Generative Category-level Object Pose Estimation via Diffusion Models**:
  Jiyao Zhang*, **Mingdong Wu***, Hao Dong, *NeurIPS 2023*.
- **Learning Score-based Grasping Primitive for Human-assisting Dexterous Grasping**:
  Tianhao Wu*, **Mingdong Wu***, Jiyao Zhang, Yunchong Gan, Hao Dong, *NeurIPS 2023*.
- **Learning Gradient Fields for Scalable and Generalizable Irregular Packing**:
  Tianyang Xue*, **Mingdong Wu***, Lin Lu, Haoxuan Wang, Hao Dong, Baoquan Chen, *SIGGRAPH Asia 2023*.
- **Find What You Want: Learning Demand-conditioned Object Attribute Space for Demand-driven Navigation**:
  Hongcheng Wang, Guanhong Chen, Xiaoqi Li, **Mingdong Wu**, Hao Dong, *NeurIPS 2023*.
- **DualGF: Example-driven Planning via Dual Gradient Fields**:
  Mingdong Wu, Fangwei Zhong, Yulong Xia, Yizhou Wang, Hao Dong, *in submission 2024*.
- **SocialGFs: Learning Social Gradient Fields for Multi-Agent Reinforcement Learning**:
  Qian Long, Fangwei Zhong, **Mingdong Wu**, Yizhou Wang, Song-Chun Zhu, *in submission 2024*.
- **Distilling Functional Rearrangement Priors from Large Models**:
  Yiming Zeng*, **Mingdong Wu***, Long Yang, Jiyao Zhang, Hao Ding, Hui Cheng, Hao Dong, *in submission 2024*.

Invited Talks

- May 2023, *Lightning Talk: Learning Target Gradient Fields for Object Rearrangement*, Turing Student Research Forum
- May 2023, *Tutorial: Embracing Diffusion Models and Gradient Field Planners*, Turing Student Research Forum
- Nov 2022, *Live Talk: Learning Target Gradient Fields for Object Rearrangement*, ZHIDX AI New Youth Talk
- Nov 2022, *Learning Target Gradient Fields for Object Rearrangement*, Beijing Institute for General Artificial Intelligence
- Oct 2022, *Learning Gradient Fields for Object Rearrangement*, CMU Safe AI Laboratory

Internship

- Beijing Institute for General Artificial Intelligence (BIGAI), July 2022 - Aug 2023

Honors and Awards

- *Best Tutorial Award*, Turing Student Research Forum, May 2023
- *Best Poster Award*, Turing Student Research Forum, May 2023
- ***BIGAI's Rising Star Award, 1st***, Jan 2023
- *Ubiquant Investment Scholarship*, Ubiquant Investment (Beijing), May 2019
- *Peking University's Third-class Scholarship*, Peking University, May 2018

Professional Services

- ICRA 2024 Reviewer, Oct 2023
- ICLR 2024 Reviewer, Aug 2023
- NeurIPS 2023 Reviewer, May 2023