Mingxuan Wu

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Education

- **UNIVERSITY OF CALIFORNIA - BERKELEY**
  Visiting Student of Computer Science *Aug 2022 - Aug 2023*

- **XI'AN JIAOTONG UNIVERSITY**
  Bachelor of Computer Science; *Sept 2020 - Jun 2025*

Research Employment

- **UNIVERSITY OF CALIFORNIA - BERKELEY**
  Research Intern *Aug 2023 - Aug 2024*

Publications

- **Mingxuan Wu***, Huang Huang*, Justin Kerr, Chung Min Kim, Anthony Zhang, Brent Yi, Angjoo Kanazawa Predict, Optimize, Distill: A Self-Improving Cycle for 4D Object Understanding. *(ICCV 2025)*
- Justin Kerr*, Chung Min Kim*, **Mingxuan Wu**, Brent Yi, Qianqian Wang, Ken Goldberg, & Angjoo Kanazawa. Robot See Robot Do: Imitating Articulated Object Manipulation with Monocular 4D Reconstruction. *(CoRL 2024* ***Oral****)*
- Chung Min Kim*, **Mingxuan Wu***, Justin Kerr*, Matthew Tancik, Ken Goldberg, & Angjoo Kanazawa. GARField: Group Anything with Radiance Fields. * Equal contribution. *(CVPR 2024)*

Research Experience

- **POD: A Self-Improving Cycle for 4D Object Understanding**
  Research Assistant *Jul 2024 - Mar 2025*
  - **Achievement**: Currently working on POD, a self-improving system that uses prediction, optimization, and distillation to better understand 4D object motion from videos, improving over time with more observations.
  - **Role and Collaboration**: Cooperating with Raven Huang, Chung Min Kim, Brent Yi and Justin Kerr, advised by Professor Angjoo Kanazawa.

- **Robot See Robot Do**
  Research Assistant *Feb 2024 - Jul 2024*
  - **Achievement**: Developed 4D Differentiable Part Models (4D-DPM), an analysis-by-synthesis approach leveraging part-centric feature fields and geometric regularizers for reconstructing 3D motion from monocular videos, enabling applications like robotic trajectory replication.
  - **Role and Collaboration**: Teaming up with Justin Kerr, Chung Min Kim, Brent Yi and Qianqian Wang, guided by Professor Ken Goldberg and Professor Angjoo Kanazawa.

- **GARField**
  Research Assistant *Apr 2023 - Feb 2024*
  - **Achievement**: Contributed to the development of a novel method called GARField utilizing multi-level masks to build a scale-conditioned affinity field for the 3d hierarchical grouping, which can be used for the 3d assets extraction.
  - **Role and Collaboration**: In collaboration with Chung Min Kim and Justin Kerr and Matthew Tancik, supervised by Professor Ken Goldberg and Professor Angjoo Kanazawa.

- **NeRFie-Talkie**
  Research Assistant *Dec 2022 - Apr 2023*
  - **Achievement**: Developed NeRFie-Talkie, a novel approach that transfers scene representations from one NeRF scene to another using a CodeBook, with the success verified through an assessment of the transferability of information between NeRF models.
  - **Role and Collaboration**: Worked alongside Erich Liang on research projects, supervised by Professor Angjoo Kanazawa.