

# Fanbo Xiang

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## Bio

I received Ph.D. in Computer Science at UC San Diego advised by professor Hao Su. During my Ph.D. career, I developed the embodied AI simulation platform SAPIEN, now used by hundreds of institutes around the world. Prior to joining UCSD, I earned computer science and math dual bachelor's degrees from University of Illinois Urbana-Champaign.

## Education

### University of California San Diego

Ph.D. Candidate in Computer Science

2020 - 2024

M.S. Computer Science

2018 - 2020

- advisor: **Prof. Hao Su**

### University of Illinois Urbana-Champaign

B.S. Computer Science, B.S. Mathematics Dual Degree (with Highest Honors)

2014 - 2018

## Selected Publications

### ManiSkill2: A Unified Benchmark for Generalizable Manipulation Skills

ICLR 2023

Jiayuan Gu\*, **Fanbo Xiang\***, Xuanlin Li, Zhan Ling, Xiqiang Liu, Tongzhou Mu, Yihe Tang, Stone Tao, Xinyue Wei, Yunchao Yao, Xiaodi Yuan, Pengwei Xie, Zhiao Huang, Rui Chen, Hao Su

### ManiSkill: Learning-from-Demonstrations Benchmark for Generalizable Manipulation Skills

NeurIPS 2021

Tongzhou Mu\*, Zhan Ling\*, **Fanbo Xiang\***, Derek Yang\*, Xuanlin Li\*, Stone Tao, Zhiao Huang, Zhiwei Jia, Hao Su

### Neural Texture Mapping for Volumetric Neural Rendering

CVPR 2021

**Fanbo Xiang**, Zexiang Xu, Miloš Hašan, Yannick Hold-Geoffroy, Kalyan Sunkavalli, Hao Su

### SAPIEN: A Simulated Part-based Interactive Environment

CVPR 2020

**Fanbo Xiang**, Yuzhe Qin, Kaichun Mo, Yikuan Xia, Hao Zhu, Fangchen Liu, Minghua Liu, Hanxiao Jiang, Yifu Yuan, He Wang, Li Yi, Angel Chang, Leonidas Guibas, Hao Su

### Close the optical sensing domain gap by physics-grounded active stereo sensor simulation

T-RO 2023

Xiaoshuai Zhang, Rui Chen, Ang Li, **Fanbo Xiang**, Yuzhe Qin, Jiayuan Gu, Zhan Ling, Minghua Liu, Peiyu Zeng, Songfang Han, Zhiao Huang, Tongzhou Mu, Jing Xu, Hao Su

### O2O-Afford: Annotation-free large-scale object-object affordance learning

CoRL 2022

Kaichun Mo, Yuzhe Qin, **Fanbo Xiang**, Hao Su, Leonidas Guibas

### MVSNeRF: Fast Generalizable Radiance Field Reconstruction From Multi-View Stereo

ICCV 2021

Anpei Chen, Zexiang Xu, Fuqiang Zhao, Xiaoshuai Zhang, **Fanbo Xiang**, Jingyi Yu, Hao Su

### OCRTOC: A Cloud-Based Competition and Benchmark for Robotic Grasping and Manipulation

RAL 2021

Ziyuan Liu, Wei Liu, Yuzhe Qin, **Fanbo Xiang**, Minghao Gou, Songyan Xin, Maximo A Roa, Berk Calli, Hao Su, Yu Sun, Ping Tan

## Academic Activities

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<b>Challenge Organizer</b>	SAPIEN ManiSkill Challenge (CVPR 2023, ICLR 2022) Open Cloud Robot Table Organization Challenge (IROS 2020)
<b>Tutorial Organizer</b>	Building and Working in Environments for Embodied AI (CVPR 2022)
<b>Workshop Organizer</b>	SEAI: Simulation Technology for Embodied AI (ICCV 2021)
<b>Reviewer</b>	CVPR, ICCV, ECCV, SIGGRAPH, ICLR, NeurIPS, AAAI, CoRL, T-RO

## Working Experience

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### Senior Director, Robotics Simulation

Hillbot

*San Diego*

*2024 - present*

- Leading the design and implementation of robotic simulation systems.

### Robotics Simulation Intern

NVIDIA

*Remote*

*June - Sept. 2021, 2022*

- Research on robotics and physical simulation.

### Research Intern

Adobe

*Remote*

*June - Sept. 2020*

- Research on neural capture and differentiable rendering.

### GPU Software Performance Intern

Apple Inc.

*Cupertino, CA*

*June - Sept. 2019*

- Improving GPU and machine learning workloads for iOS.