Kai Wang

kwang-ether.github.io · kwang.ether@gmail.com

EDUCATION

Brown University
PhD, Computer Science
Dissertation: *Learning Autoregressive Generative Models of 3D Shapes and Scenes*
Advisor: Daniel Ritchie
2017 – 2023

Williams College
BA, Computer Science
Honor in Computer Science, Magna Cum Laude, Phi Beta Kappa
2011 – 2016

Hangzhou Foreign Languages School
2005 – 2011

EMPLOYMENT

Postdoctoral Scientist 2023 – Present
Amazon Vancouver, BC, Canada
Advisor: Richard Zhang

- Motion understanding and prediction
- UI/UX for product motion and functionality
- Connecting LLM to dynamic 3D scenes

Research Intern Summer, 2020
Adobe Inc. Remote
Advisor: Minhyuk Sung

Research Intern Summer, 2019
Facebook AI Research Menlo Park, CA
Advisor: Manolis Savva

Graduate Research Assistant Providence, RI
Brown University 2017 – 2023

Cofounder Hangzhou, China
Unnamed Startup 2016 – 2017

Cofounder, Chief Operating Officer Hangzhou, China
Stoooges Education 2013 – 2014

REFEREED PUBLICATIONS

The Shape Part Slot Machine: Contact-based Reasoning for Generating 3D Shapes from Parts. Kai Wang, Paul Guerrero, Vladimir Kim, Siddhartha Chaudhuri, Minhyuk Sung, Daniel Ritchie. *ECCV 2022.*

Roominoes: Generating Novel 3D Floor Plans From Existing 3D Rooms. Kai Wang, Xianghao Xu, Leon Lei, Natalie Lindsay, Selena Ling, Angel X. Chang, Manolis Savva, Daniel Ritchie. *SGP 2021.*

ShapeAssembly: Learning to Generate Programs for 3D Shape Structure Synthesis. R. Kenny Jones, Theresa Barton, Xianghao Xu, Kai Wang, Ellen Jiang, Paul Guerrero, Niloy Mitra, Daniel Ritchie. *SIGGRAPH Asia 2020.*

PlanIT: Planning and Instantiating Indoor Scenes with Relation Graph and Spatial Prior Networks. Kai Wang, Yu-an Lin, Ben Weissmann, Manolis Savva, Angel X. Chang, Daniel Ritchie. *SIGGRAPH 2019*.

Fast and Flexible Indoor Scene Synthesis via Deep Generative Models. Daniel Ritchie, Kai Wang, Yu-an Lin. *CVPR 2019*.

Deep Convolutional Priors for Indoor Scene Synthesis. Kai Wang, Manolis Savva, Angel X. Chang, Daniel Ritchie. *SIGGRAPH 2018*.

TUTORIALS & WORKSHOPS

3D Vision and Modeling Challenges in eCommerce October 2024
Kai Wang, Yiming Qian, Loris Bazzani, Angel Chang, Peter Gehler, Francisca Gil-Ureta, Brian Jackson, Despoina Paschalidou, Daniel Ritchie, Javier Romero, Jian Wang, Fenggen Yu, Xu Zhang, Chuhang Zou
ECCV 2024 Workshop

AI for 3D Generation June 2024
Despoina Paschalidou, Georgios Pavlakos, Davis Rempe, Angel Xuan Chang, Kai Wang, Amlan Kar, Daniel Ritchie, Kaihcun Mo, Manolis Savva, Paul Guerrero, Siyu Tang, Leonidas Guibas
CVPR 2024 Workshop

Learning to Generate 3D Shapes and Scenes October 2022
Kai Wang, Akshay Gadi Patil, Angel X. Chang, Paul Guerrero, Daniel Ritchie, Manolis Savva
ECCV 2022 Workshop

Structural and Compositional Learning on 3D Data October 2021
Kaichun Mo, Paul Guerrero, Kai Wang, Antoni Rosinol, Fei Xia, Danfei Xu, Songfang Han, Minhyuk Sung
ICCV 2021 Workshop

TEACHING

Graduate Teaching Assistant Spring 2019
Brown CSCI2240: Interactive Computer Graphics

Teaching Assistant Spring 2014, Spring 2015, Spring 2016
Williams CS256: Algorithm Design and Analysis

Teaching Assistant Fall 2015, Fall 2016
Williams CS361: Theory of Computation

Teaching Assistant Fall 2012
Williams CS136: Data Structures and Advanced Programming

AWARDS & HONORS

Adobe Research Fellowship 2020
Brown Graduate Fellowship 2017

SERVICE

Program Committee Member / Area Chair
SIGGRAPH Asia: 2024-2025
SIGGRAPH Asia Posters and Technical Communications: 2024-2025
3DV: 2025

Conference Reviewer
NeurIPS: 2019 (400 highest scoring reviewers), 2020-2025
ICML: 2020-2024
ICLR: 2021 (Outstanding reviewer), 2022-2024
SIGGRAPH: 2021, 2023-2025
SIGGRAPH Asia: 2020-2024
CVPR: 2021-2024
ECCV: 2022
ICCV: 2023, 2025
3DV: 2021, 2022, 2024
AAAI: 2024
IEEE ISMAR: 2024

Journal Reviewer
ACM TOG: 2021-2025
IEEE TVCG: 2018, 2019, 2021-2025
Computer Graphics Forum: 2024
JMLR: 2022
The Visual Computer: 2022

Other Reviewer
SIGGRAPH Asia 2021 Emergent Technologies
SIGGRAPH 2022 Posters