

Yunsheng Tian

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EDUCATION

Massachusetts Institute of Technology Cambridge, MA, U.S.
Ph.D. in Computer Science, Department of EECS & CSAIL Aug 2019 — Present

Nankai University Tianjin, China
B.Eng. in Software Engineering, College of Software Sep 2015 — Jun 2019

Stanford University Stanford, CA, U.S.
Summer Session Visiting Student Jun 2017 — Aug 2017

RESEARCH INTERESTS

My main research interest is developing machine learning-based tools assisting efficient optimization and exploration for real-world problems, especially for graphics and robotics. In detail:

Graphics: Computational Design, Physically-Based Simulation

Machine Learning: Reinforcement Learning, Bayesian Optimization, Multi-Objective Optimization, Open-Source Software Development

Robotics: Robot Design, Planning and Control

WORK EXPERIENCE

Research Assistant, Massachusetts Institute of Technology Cambridge, MA, U.S.
Advisor: Prof. Wojciech Matusik, *Department of EECS & CSAIL* Aug 2019 — Present
Focus: Robot Control, Reinforcement Learning, Multi-Objective Optimization, Bayesian Optimization

Research Assistant, Nankai University Tianjin, China
Advisor: Prof. Bo Ren, *College of Computer Science* Mar 2016 — Jun 2019
Focus: Fluid/Rigid Body Simulation, Reinforcement Learning

Research Assistant, The University of Hong Kong Hong Kong, China
Advisor: Prof. Jia Pan, *Department of Computer Science* Feb 2019 — May 2019
Focus: Robot Exploration, Reinforcement Learning

Research Intern, Microsoft Research Asia Beijing, China
Advisor: Zheng Zhang, Dr. Jifeng Dai, *Visual Computing Group* Jul 2018 — Sep 2018
Focus: Deep Learning, Object Detection, GPU Optimization

PUBLICATION

(* indicates equal contribution.)

Diversity-Guided Multi-Objective Bayesian Optimization With Batch Evaluations

Mina Konakovic Lukovic*, [Yunsheng Tian](#)* and Wojciech Matusik

Thirty-fourth Conference on Neural Information Processing Systems (NeurIPS 2020)

Prediction-Guided Multi-Objective Reinforcement Learning for Continuous Robot Control

Jie Xu, [Yunsheng Tian](#), Pingchuan Ma, Daniela Rus, Shinjiro Sueda and Wojciech Matusik

Thirty-seventh International Conference on Machine Learning (ICML 2020)

Fluid Directed Rigid Body Control using Deep Reinforcement Learning

Pingchuan Ma*, [Yunsheng Tian](#)*, Zherong Pan, Bo Ren, and Dinesh Manocha

ACM Transactions on Graphics (SIGGRAPH Proceedings 2018)

COMPETITION

AI for Prosthetics (Learning to Run), 10th Place
NeurIPS 2018 Deep Reinforcement Learning Challenge

Nov 2018

HONORS & AWARDS

National Scholarship (Top 2%)
Ministry of Education of the People's Republic of China

Nov 2016, Nov 2017

Outstanding Graduate in Nankai University (Top 4%)
Nankai University

Jun 2019