

# Yunsheng Tian

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## EDUCATION

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Massachusetts Institute of Technology <i>Ph.D. in Computer Science, Department of EECS &amp; CSAIL</i>	Cambridge, MA, U.S. Aug 2019 — Present
Nankai University <i>B.Eng. in Software Engineering, College of Software</i>	Tianjin, China Sep 2015 — Jun 2019
Stanford University <i>Summer Session Visiting Student</i>	Stanford, CA, U.S. Jun 2017 — Aug 2017

## RESEARCH INTERESTS

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My main research interest is developing machine learning-based tools assisting efficient optimization and exploration for real-world problems, specifically in the following areas:

**Computer Graphics:** Computational Design, Physically-Based Animation

**Machine Learning:** Reinforcement Learning, Bayesian Optimization, Multi-Objective Optimization

**Robotics:** Evolutionary Design, Learning-Based Control

## WORK EXPERIENCE

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Research Assistant, Massachusetts Institute of Technology Advisor: Prof. Wojciech Matusik, <i>Department of EECS &amp; CSAIL</i> Focus: Computational Design, Optimization Algorithms, Reinforcement Learning	Cambridge, MA, U.S. Aug 2019 — Present
Research Assistant, Nankai University Advisor: Prof. Bo Ren, <i>College of Computer Science</i> Focus: Fluid/Rigid Body Simulation, Reinforcement Learning	Tianjin, China Mar 2016 — Jun 2019
Research Assistant, The University of Hong Kong Advisor: Prof. Jia Pan, <i>Department of Computer Science</i> Focus: Robot Exploration, Reinforcement Learning	Hong Kong, China Feb 2019 — May 2019
Research Intern, Microsoft Research Asia Advisor: Zheng Zhang, Dr. Jifeng Dai, <i>Visual Computing Group</i> Focus: Object Detection, GPU Optimization	Beijing, China Jul 2018 — Sep 2018

## PUBLICATION

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(\* indicates equal contribution.)

AutoOED: Automated Optimal Experiment Design Platform <u>Yunsheng Tian</u> , Mina Konakovic Lukovic, Timothy Erps, Michael Foshey and Wojciech Matusik <i>arXiv Preprint, 2021</i>	Apr 2021
Diversity-Guided Multi-Objective Bayesian Optimization With Batch Evaluations Mina Konakovic Lukovic*, <u>Yunsheng Tian</u> * and Wojciech Matusik <i>Thirty-fourth Conference on Neural Information Processing Systems (NeurIPS), 2020</i>	Dec 2020
Prediction-Guided Multi-Objective Reinforcement Learning for Continuous Robot Control Jie Xu, <u>Yunsheng Tian</u> , Pingchuan Ma, Daniela Rus, Shinjiro Sueda and Wojciech Matusik <i>Thirty-seventh International Conference on Machine Learning (ICML), 2020</i>	Jul 2020
Fluid Directed Rigid Body Control using Deep Reinforcement Learning Pingchuan Ma*, <u>Yunsheng Tian</u> *, Zherong Pan, Bo Ren, and Dinesh Manocha <i>ACM Transactions on Graphics (SIGGRAPH), 2018</i>	Aug 2018

## COMPETITION

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

Nov 2018

## HONORS & AWARDS

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**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