Tingwu Wang

Research Scientist at Nvidia Animation

https://tingwuwang.github.io/

Education

University of Toronto, Ontario, Canada
PhD in Computer Science — *Jan. 2018 - June 2022*
Thesis: Learning Scalable Physics-based Motion Skills with Reinforcement Learning
Advisor: Prof. Sanja Fidler and Prof. Jimmy Ba

Master of Computer Science — *Jul. 2016 - Jan. 2018*
Advisor: Prof. Sanja Fidler — GPA: 4.00/4.00

Tsinghua University, Beijing, China — *Aug. 2012 - Jul. 2016*
Bachelor of Electronic Engineering — GPA: 91.1/100

Technische Universität München, Bavaria, Germany — *Aug. 2014 - Feb. 2015*
Exchange student in Department of Informatics

Publications, Preprints and Patents

Mohamed Hassan, Yunrong Guo, **Tingwu Wang**, Michael Black, Sanja Fidler, Xue Bin Peng, *Synthesizing Physical Character-Scene Interactions*, SIGGRAPH, 2023.

Kevin Xie, **Tingwu Wang**, Umar Iqbal, Yunrong Guo, Sanja Fidler, Florian Shkurti, *Physics-based Human Motion Estimation and Synthesis from Videos*, International Conference on Computer Vision, ICCV, 2021.

Tingwu Wang, Yunrong Guo, Maria Shugrina, Sanja Fidler, *UniCon: Universal Neural Controller For Physics-based Character Motion*, Arxiv 2020.

Tingwu Wang, Jimmy Ba, *Exploring Model-based Planning with Policy Networks*, International Conference on Learning Representations (ICLR'20).

Jiaman Li, Yihang Yin, Hang Chu, Yi Zhou, **Tingwu Wang**, Sanja Fidler, Hao Li, *Learning to Generate Diverse Dance Motions with Transformer*, Arxiv 2020.

Tingwu Wang, Xuchan Bao, Ignasi Clavera, Jerrick Hoang, Yeming Wen, Eric Langlois, Shunshi Zhang, Guodong Zhang, Pieter Abbeel, Jimmy Ba, *Benchmarking Model-Based Reinforcement Learning*, Arxiv 2019.

Tingwu Wang*, Henry Zhou*, Sanja Fidler, Jimmy Ba, *Neural Graph Evolution: Towards Efficient Automatic Robot Design*, International Conference on Learning Representations (ICLR'19).

Tingwu Wang*, Renjie Liao*, Jimmy Ba, Sanja Fidler, *NerveNet: Learning Structured Policy with Graph Neural Networks*, International Conference on Learning Representations (ICLR'18).

Xavier Puig, Kevin Ra, Marko Boben, Jiaman Li, **Tingwu Wang**, Sanja Fidler, Antonio Torralba, *VirtualHome: Simulating Household Activities via Programs*, Conference on Computer Vision and Pattern Recognition (CVPR'18) (Oral).

Tingwu Wang, Chunxiao Jiang and Yong Ren, *Access Points Selection in Super WiFi Network Powered by Solar Energy Harvesting*, IEEE Wireless Communications and Networking Conference (WCNC'16).

Tingwu Wang, Jinjin Wang, Chunxiao Jiang, Jian Wang and Yong Ren, *Access Strategy in Energy Harvesting Super WiFi Network: A POMDP Method*, IEEE 83rd Vehicular Technology Conference, 2016 (VTC'16).

Work Experience

NVIDIA, Toronto — *Mar. 2022 -*
Research Scientist — Nvidia Animation Team

NVIDIA, Toronto — *Oct. 2020 - Mar. 2022*
Research Scientist at Toronto AI Lab (Part-time) — Mentor: Prof. Sanja Fidler

NVIDIA, Toronto — *May 2019 - Oct. 2020*
Student Research Intern at Toronto AI Lab (Part-time) — Mentor: Prof. Sanja Fidler

MMLAB, Chinese University of Hong Kong, Hong Kong — *Jul. 2015 - Sep. 2015*
Visiting Research Assistant — Mentor: Prof. Xiaoou Tang, Prof. Chen Change Loy

SenseTime Limited, Beijing — *May. 2015 - Mar. 2016*
Student Research Intern (Part-time) — Mentor: Dr. Yan Xia

Skills

Programming Languages: C++, Matlab, Python, Verilog, Java, Bash, Cython, Javascript

Project / Lib Experiences: Ubuntu, Raspbian, OpenWrt, Tensorflow, PyTorch, LibTorch C++, Caffe, CUDA, Django, Pixar USD

Services

Reviewer for ICLR, ICML, NeurIPS, SIGGRAPH, AAAI, UAI, ICCV, ECCV, CVPR, SIGGRAPH-ASIA, TMLR, ICRA, CORL — *2016 - Now*

Teaching

Department of Computer Science, University of Toronto:

Teaching Assistant for CSC 420, Image Understanding	*Fall Semester, 2016*
Teaching Assistant for CSC 320, Introduction to Visual Computing	*Winter Semester, 2017*
Teaching Assistant for CSC 411, Introduction to Machine Learning	*Fall Semester, 2017*
Teaching Assistant for CSC 411, Machine Learning and Data Mining	*Winter Semester, 2018*
Teaching Assistant for CSC 2541, Deep Reinforcement Learning	*Fall Semester, 2018*
Teaching Assistant for CSC 2621, Reinforcement Learning in Robotics	*Winter Semester, 2020*