

# TINGWU WANG

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tingwuwang@cs.toronto.edu Curriculum Vitae, Feb. 24th, 2018

## EDUCATION

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### University of Toronto

Doctor of Philosophy - Machine Learning Jan. 2018 - Now

Advisor: Prof. Sanja Fidler and Prof. Jimmy Ba GPA: -. -/4.00

Master of Science - Machine Learning Jul. 2016 - Jan. 2018

Advisor: Prof. Sanja Fidler GPA: 4.00/4.00

### Tsinghua University

B.Eng - Electronic Information Science and Technology Aug. 2012 - Jul. 2016

GPA: 91/100 or 3.89/4.00

### Technische Universität München

Exchange Student, International Academic Program Aug. 2014 - Feb. 2015

GPA: 3.90/4.00

## PUBLICATIONS, PREPRINTS AND PATENTS

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**Tingwu Wang\***, Renjie Liao\*, Richard S. Zemel, 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).

**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).

Qiu Shi, Po Man Cheng, **Tingwu Wang**, Yan Xia and Wei Zhang, *Costume Detection and Attribute Value Identification Method and System*, Patent: CN105447529 A, 2016.

## RESEARCH EXPERIENCE

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**MMLAB**, Chinese University of Hong Kong Jul. 2015 - Sep. 2015

**Visiting Research Assistant** Advisors: Prof. Xiaoou Tang, Prof. Chen Change Loy  
Research on object detection using deep neural networks.

**SenseTime Limited**, Beijing May. 2015 - Mar. 2016

**Research Engineer** Advisor: Dr. Yan Xia  
Research on object retrieval using deep neural networks, involved in several application projects.

**Next Generation Network Lab**, Tsinghua University Dec. 2015 - Aug. 2016

**Research Assistant** Advisor: Prof. Xing Li  
Research on wireless internet of things, IPv6, IVI, IPv6-over-IPv4 tunnel.

**Complex Systems Lab**, Tsinghua University May. 2014 - Aug. 2015

**Research Assistant** Advisor: Prof. Yong Ren, Prof. Chunxiao Jiang  
Research on sequence decision and POMDP, publishing **two first-author conference papers**.

**Institute of Circuits and Systems**, Tsinghua University

*Sep. 2013 - Feb. 2014*

**Research Assistant**

Advisor: Prof. Fei Qiao.

Research on robot vision and control. Project won the **Intel-University Joint Research Award**.

#### SKILLS

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Spoken Language: English (Fluent); German (Entry); Mandarin (Native); Hunanese (Native)  
Programming Languages: C++, Matlab, Python, Verilog, Java, Bash, Cython, Javascript  
Project Experiences: Ubuntu, Raspbian, OpenWrt & Tensorflow, Caffe, CUDA, Django.

#### AWARDS AND HONORS

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ICLR Travel Award, Sixth International Conference on Learning Representations *Feb. 2018*  
University of Toronto Fellowship, Faculty of Arts and Science *Oct. 2016 and 2017*  
University of Toronto Tuition Fellowship, Faculty of Arts and Science *Oct. 2016 and 2017*  
Outstanding Technical Innovation Award - Alumni Scholarship, Tsinghua University *Oct. 2014*  
Intel-University Joint Research Award, Intel *Sept. 2014*  
Third Prize of Challenge Cup of Tsinghua University *Sept. 2014*  
Meritorious Prize in the University Physics Competition, Beijing, China (top 1%) *Dec. 2013*  
Meritorious Prize in DS-AI Designing Competition, Tsinghua University *Feb. 2013*  
Zheng-Geru Alumni Scholarship, Tsinghua University *Dec. 2012*  
Outstanding Freshmen Scholarship, Tsinghua University (top 5%) *Oct. 2012*

#### SERVICES

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Vice-President of the Society for Science and Technology *Oct. 2015 - Oct. 2016*  
Department of Electronic Engineering, Tsinghua University  
Head of the Computer Vision Development Group *Jun. 2013 - June. 2015*  
15<sup>th</sup> and 16<sup>th</sup> Electronic Design Contest Development Committee

#### TEACHING

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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*

#### GRAD-LEVEL COURSES TAKEN

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IN 2064, Machine Learning (Course Rank: 1<sup>st</sup>/158): *A+*  
EI 7431, Information Theory (Course Rank: 1<sup>st</sup>/99): *A+*  
CSC 2503, Foundations of Computer Vision: *A+*  
CSC 2541, Inference and Generative Models: *A+*  
CSC 2506, Probabilistic Learning and Reasoning: *A*  
CSC 2546, Computational Neuroscience: *A*