

ZHANG-WEI HONG

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EDUCATION

Massachusetts Institute of Technology

Ph.D. in Electrical Engineering and Computer Science,

start 2020 - present

Advised by *Prof. Pulkit Agrawal*

National Tsing Hua University

Master in Computer Science,

Overall GPA: 4.22 / 4.3

start 2017 - end 2018

Advised by *Prof. Chun-Yi Lee*

National Tsing Hua University

Bachelor in Computer Science

Overall GPA: 3.95 / 4.3

Major GPA: 4.12 / 4.3

start 2014 - end 2017

PUBLICATIONS

Chin-Jui Chang, Yu-Wei Chu, Chao-Hsien Ting, Hao-Kang Liu, Zhang-Wei Hong, and Chun-Yi Lee, **Reducing the Deployment-Time Inference Control Costs of Deep Reinforcement Learning Agents via an Asymmetric Architecture**, Accepted by *International Conference on Robotics and Automation (ICRA) 2021*

Zhang-Wei Hong, Prabhat Nagarajan, and Guilherme Maeda, **Periodic Intra-Ensemble Knowledge Distillation for Reinforcement Learning**, Accepted by *European Conference on Machine Learning 2021* and *Deep Reinforcement Learning Workshop at Conference on Neural Information Processing Systems 2019*

Zhang-Wei Hong, Tsu-Jui Fu, Tzu-Yun Shann, Yi-Hsiang Chang, and Chun-Yi Lee. **Adversarial Active Exploration Strategy for Inverse Dynamics Model Learning**, Accepted as an oral paper by *Conference on Robot Learning 2019*

Zhang-Wei Hong, Tzu-Yun Shann, Shih-Yang Su, Yi-Hsiang Chang, Tsu-Jui Fu, and Chun-Yi Lee. **Diversity-driven Exploration Strategy for Deep Reinforcement Learning**, Accepted as a poster paper by *Conference on Neural Information Processing Systems 2018*

Zhang-Wei Hong, Chen Yu-Ming, Shih-Yang Su, Tzu-Yun Shann, Yi-Hsiang Chang, Hsuan-Kung Yang, Brian Hsi-Lin Ho, Chih-Chieh Tu, Yueh-Chuan Chang, Tsu-Ching Hsiao, Hsin-Wei Hsiao, Sih-Pin Lai, and Chun-Yi Lee **Virtual-to-Real: Learning to Control in Visual Semantic Segmentation**, Accepted as an oral paper by *International Joint Conferences on Artificial Intelligence 2018*

Zhang-Wei Hong^{*}, Shih-Yang Su^{*}, Tzu-Yun Shann^{*}, Yi-Hsiang Chang, and Chun-Yi Lee. **Deep Policy Inference Q-Network for Multi-Agent Systems**, Accepted as an oral paper by *International Conference on Autonomous Agents and Multiagent Systems 2018*

Yen-Chen Lin, Zhang-Wei Hong, Yuan-Hong Liao, Meng-Li Shih, Ming-Yu Liu, and Min Sun. **Tactics of adversarial attack on deep reinforcement learning agents**, Accepted as an oral paper by *International Joint Conferences on Artificial Intelligence 2017*

EXPERIENCE

Full-time research assistant , National Tsing Hua University, Taiwan	<i>2019 Oct. - 2020 Mar.</i>
Research intern , Preferred Networks, Japan	<i>2019 Jun. - 2019 Sep.</i>
Engineering intern , Appier, Taiwan	<i>2019 Feb. - 2019 Jun.</i>
Visiting researcher , Advised by <i>Jan Peters</i> , TU Darmstadt, Germany	<i>2018 Jul. - 2018 Sep.</i>
Graduate research assistant , National Tsing Hua University, Taiwan	<i>2016 Oct. - 2019 Jan.</i>
Engineering intern , Mediatek, Taiwan	<i>2016 Jul. - 2016 Sep.</i>
Contract engineer , Industrial Technology Research Institute, Taiwan	<i>2015 Oct. - 2015 Dec.</i>

TEACHING

6.S090 - Deep Learning for Control , MIT, U.S.	<i>2021 Jan.</i>
Lectures of off-policy reinforcement learning	
Nvidia deep learning institute , Nvidia, Taiwan	<i>2017 Jul. - 2017 Oct.</i>
Hands-on image recognition	

SERVICE

Conference on Robot Learning , <i>reviewer</i>	<i>2021</i>
International Conference on Intelligent Robots and Systems , <i>reviewer</i>	<i>2019</i>
Advanced Robotics Journal , <i>reviewer</i>	<i>2019</i>
Conference on Neural Information Processing Systems , <i>volunteer</i>	<i>2018</i>
International Joint Conferences on Artificial Intelligence , <i>volunteer</i>	<i>2018</i>

PROJECTS

Nvidia Embedded Intelligent Robot Challenge	<i>2016 Jun. - 2016 Sep.</i>
Develop an intelligent robot using Nvidia Jetson TX1 to solve three tasks: (i) autonomous driving, (ii) object pick-and-place, and (iii) image recognition.	

SKILLS

Programming Languages and Frameworks
- C/C++/C#/Python/Java
- Message Passing Interface (MPI)/CUDA/OpenGL/Robot Operating System(ROS)
- Tensorflow/PyTorch/Chainer
Languages
- Mandarin (Chinese)
- English

AWARDS AND SCHOLARSHIPS

DAAD & MOST Summer Institute Program Fellowship	
<i>Ministry of Science and Technology and Deutscher Akademischer Austausch Dienst</i>	<i>2019</i>
Student conference travel grant	
<i>Appier</i>	<i>2018</i>
Student conference travel grant	
<i>Ministry of Science and Technology</i>	<i>2018</i>
Nvidia Jetson Developer Challenge 1st prize	
<i>Nvidia</i>	<i>2018</i>
Master scholarship	
<i>National Tsing Hua University</i>	<i>2017</i>
Nvidia Embedded Intelligent Robotics Challenge - 1st prize	

Nvidia

2017

Meichu Hackthon (Microsoft Azure group) - 3rd prize

Microsoft

2015