ZHANG-WEI HONG

32 Vassar St, Cambridge, MA 02139, United States
zwhong@mit.edu ◇ williamd4112.github.io

EDUCATION

Massachusetts Institute of Technology *start 2020 - present*
Ph.D. in Electrical Engineering and Computer Science, Advised by *Prof. Pulkit Agrawal*

National Tsing Hua University *start 2017 - end 2018*
Master in Computer Science, Advised by *Prof. Chun-Yi Lee*
Overall GPA: 4.22 / 4.3

National Tsing Hua University *start 2014 - end 2017*
Bachelor in Computer Science
Overall GPA: 3.95 / 4.3
Major GPA: 4.12 / 4.3

PUBLICATIONS

Zhang-Wei Hong, Ge Yang, and Pulkit Agrawal. **Bilinear Value Networks for Multi-goal Reinforcement Learning**, In submission to *International Conference on Representation Learning 2022*

Zhang-Wei Hong, Tao Chen, Yen-Chen Lin, Joni Pajarinen, and Pulkit Agrawal. **Topological Experience Replay**, In submission to *International Conference on Representation Learning 2022*

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 *2019 Oct. - 2020 Mar.*

Research intern, Preferred Networks, Japan *2019 Jun. - 2019 Sep.*

Engineering intern, Appier, Taiwan *2019 Feb. - 2019 Jun.*

Visiting researcher, Advised by *Jan Peters*, TU Darmstadt, Germany *2018 Jul. - 2018 Sep.*

Graduate research assistant, National Tsing Hua University, Taiwan *2016 Oct. - 2019 Jan.*

Engineering intern, Mediatek, Taiwan *2016 Jul. - 2016 Sep.*

Contract engineer, Industrial Technology Research Institute, Taiwan *2015 Oct. - 2015 Dec.*

TEACHING

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

SERVICE

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

PROJECTS

Nvidia Embedded Intelligent Robot Challenge *2016 Jun. - 2016 Sep.*
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
- Mandarian (Chinese)
- English

AWARDS AND SCHOLARSHIPS

DAAD & MOST Summer Institute Program Fellowship
Ministry of Science and Technology and Deutscher Akademischer Austausch Dienst *2019*
Student conference travel grant
Appier *2018*
Student conference travel grant

Ministry of Science and Technology *2018*
Nvidia Jetson Developer Challenge 1st prize
Nvidia *2018*
Master scholarship
National Tsing Hua University *2017*
Nvidia Embedded Intelligent Robotics Challenge - 1st prize
Nvidia *2017*
Meichu Hackthon (Microsoft Azure group) - 3rd prize
Microsoft *2015*