

# Ping-Chun Hsieh

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<b>Professional Experience</b>	<b>National Yang Ming Chiao Tung University</b> ▷ Associate Professor, Department of Computer Science	Aug. 2023 - present
	<b>National Yang Ming Chiao Tung University</b> ▷ Assistant Professor, Department of Computer Science	Aug. 2019 - July. 2023
	<b>Texas A&amp;M University, College Station, TX</b> ▷ Postdoctoral Researcher (Host: Prof. P. R. Kumar)	Oct. 2018 - Jun. 2019
	<b>AT&amp;T Labs, Austin, TX</b> ▷ Research Intern (AT&T Network Ready Lab)	Jul. 2017 - Aug. 2017
	<b>Massachusetts Institute of Technology, Cambridge, MA</b> ▷ Visiting Researcher (Host: Prof. Eytan Modiano)	Jun. 2017 - Jul. 2017
	<b>MediaTek USA Inc, San Jose, CA</b> ▷ Research Intern (Communication System Design Lab)	May 2016 - Aug. 2016
<b>Education</b>	<b>Texas A&amp;M University, College Station, TX, USA</b> ▷ Ph.D. in Electrical and Computer Engineering ▷ Advisor: Prof. I-Hong Hou	Aug. 2014 - Aug. 2018
	<b>National Taiwan University, Taipei, Taiwan</b> ▷ M.S. in Electronics Engineering ▷ Advisor: Prof. Chern-Lin Chen	Sep. 2011 - Jun. 2013
	<b>National Taiwan University, Taipei, Taiwan</b> ▷ B.S. in Electrical Engineering	Sep. 2007 - Jun. 2011
<b>Honors and Research Awards</b>	<b>K. T. Li Young Researcher Award</b> (中華民國資訊學會李國鼎青年研究獎) ▷ Awarded by Institute of Information & Computing Machinery (IICM) in 2025	
	<b>Emerging Young Scholar Program</b> (國科會2030新秀學者計畫) ▷ Awarded by National Science and Technology Council (NSTC) in 2023	
	<b>Young Scholar Fellowship</b> (年輕學者養成計畫-愛因斯坦培植計畫) ▷ Awarded by Ministry of Science and technology (MOST) in 2019	
	<b>Hon Hai Technology Award</b> (鴻海科技獎) ▷ Awarded twice by Hon Hai Education Foundation in 2024 and 2025	
	<b>CS Outstanding Young Scholar Award</b> (資訊年輕學者卓越貢獻獎) ▷ Awarded by National Yang Ming Chiao Tung University in 2025	
	<b>TSC AI Thesis Award</b> (崇越AI應用論文優等指導獎) ▷ Awarded by Topco Scientific CO., Ltd. in 2025	
	<b>P.-C. Huang Junior Chair Professorship</b> (黃培城青年講座教授) ▷ Awarded by National Yang Ming Chiao Tung University in 2020	
	<b>Pulsaris Junior Chair Professorship</b> (博梭智能青年講座教授) ▷ Awarded by Pulsaris AI in 2025	

### Best Paper Award, ACM MobiHoc 2020

▷ Best paper among 196 submissions

### Best Paper Award, ACM MobiHoc 2017

▷ Best paper among 179 submissions

## Teaching Awards

### Outstanding Teaching Award (校級傑出教學獎, Top 1%)

▷ Awarded by National Yang Ming Chiao Tung University in 2024

### Excellent Teaching Award (校級優良教學獎, Top 5%)

▷ Awarded by National Yang Ming Chiao Tung University in 2022

### Awards for Excellent Teaching in English (資訊學院英語教學獎)

▷ Awarded three times by College of Computer Science, National Yang Ming Chiao Tung University in 2022, 2023, and 2024

### Fellow of the Higher Education Academy (英國高等教育學會會士)

▷ Awarded by Advance HE in 2025

## Research Interests

Reinforcement learning, multi-armed bandits, numerical optimization, Bayesian optimization, and learning to optimize

## Publications

(\* indicates student authors under my advisement)

1. Ying-Tu Chen\*, Wei Hung\*, Bing-Shu Wu\*, Zhang-Wei Hong, and **Ping-Chun Hsieh**, “A Reward-Free Viewpoint on Multi-Objective Reinforcement Learning,” in *International Conference on Learning Representations (ICLR)*, 2026.
2. Kuang-Da Wang\*, Teng-Ruei Chen\*, Yu Heng Hung\*, Guo-Xun Ko\*, Shuoyang Ding, Yueh-Hua Wu, Yu-Chiang Frank Wang, Chao-Han Huck Yang, Wen-Chih Peng, and **Ping-Chun Hsieh**, “Test-Time Alignment for Large Language Models via Textual Model Predictive Control,” in *International Conference on Learning Representations (ICLR)*, 2026.
3. Ming-Hong Chen\*, Kuan-Chen Pan\*, You-De Huang\*, Xi Liu, and **Ping-Chun Hsieh**, “Cross-Domain Policy Optimization via Bellman Consistency and Hybrid Critics,” in *International Conference on Learning Representations (ICLR)*, 2026.
4. Jian-Ting Guo\*, Yu-Cheng Chen, **Ping-Chun Hsieh**, Kuo-Hao Ho\*, Po-Wei Huang, Ti-Rong Wu, and I-Chen Wu, “Learning Human-Like RL Agents Through Trajectory Optimization With Action Quantization,” in *Proceedings of Conference on Neural Information Processing Systems (NeurIPS)*, 2025.
5. Chia-Han Yeh\*, Tse-Sheng Nan, Risto Vuorio, Wei Hung\*, Hung Yen Wu\*, Shao-Hua Sun, and **Ping-Chun Hsieh**, “Action-Constrained Imitation Learning,” in *Proceedings of International Conference on Machine Learning (ICML)*, 2025. (**TSC AI Thesis Award**)
6. Kuang-Da Wang\*, Shuoyang Ding, Chao-Han Huck Yang, **Ping-Chun Hsieh**, Wen-Chih Peng, Vitaly Lavrukhin, and Boris Ginsburg, “Extending Automatic Machine Translation Evaluation to Book-Length Documents,” in *Proceedings of Conference on Empirical Methods in Natural Language Processing (EMNLP)*, 2025.
7. Yu-Heng Hung\*, Kai-Jie Lin\*, Yu-Heng Lin\*, Chien-Yi Wang, Cheng Sun, and **Ping-Chun Hsieh**, “BOFormer: Learning to Solve Multi-Objective Bayesian Optimization via Non-Markovian RL,” in *International Conference on Learning Representations (ICLR)*, 2025. (**Hon Hai Technology Award**)
8. Wei Hung\*, Shao-Hua Sun, and **Ping-Chun Hsieh**, “Efficient Action-Constrained Reinforcement Learning via Acceptance-Rejection Method and Augmented MDPs,” in *International Conference on Learning Representations (ICLR)*, 2025.

9. Ziyu Wang, **Ping-Chun Hsieh**, Yu-Shuen Wang, and Yun-Hsuan Lien, “Relaxed Transition Kernels can Cure Underestimation in Adversarial Offline Reinforcement Learning,” in *Proceedings of Asian Conference on Machine Learning (ACML)*, 2025.
10. Yang Chang\*, Kuang-Da Wang\*, **Ping-Chun Hsieh**, Cheng-Kuan Lin, and Wen-Chih Peng, “DDOT: A Derivative-directed Dual-decoder Ordinary Differential Equation Transformer for Dynamic System Modeling,” in *Proceedings of Pacific Asia Conference on Knowledge Discovery and Data Mining (PAKDD)*, 2025.
11. Yen-Ju Chen\*, Nai-Chieh Huang\*, Ching-pei Lee, and **Ping-Chun Hsieh**, “Accelerated Policy Gradient: On the Convergence Rates of the Nesterov Momentum for Reinforcement Learning,” in *Proceedings of International Conference on Machine Learning (ICML)*, 2024.
12. Yun-Hsuan Lien\*, **Ping-Chun Hsieh**, Tzu-Mao Li, and Yu-Shuen Wang, “Enhancing Value Function Estimation through First-Order State-Action Dynamics in Offline Reinforcement Learning,” in *Proceedings of International Conference on Machine Learning (ICML)*, 2024.
13. Chun-Mao Lai, Hsiang-Chun Wang, **Ping-Chun Hsieh**, Yu-Chiang Frank Wang, Min-Hung Chen, and Shao-Hua Sun, “Diffusion-Reward Adversarial Imitation Learning,” in *Proceedings of Conference on Neural Information Processing Systems (NeurIPS)*, 2024
14. Kuang-Da Wang\*, Wei-Yao Wang, **Ping-Chun Hsieh**, and Wen-Chih Peng, “Offline Imitation of Badminton Player Behavior via Experiential Contexts and Brownian Motion,” in *Proceedings of European Conference on Machine Learning (ECML-PKDD)*, 2024. (**TAAI Master Thesis Award, Honorable Mention**)
15. Nai-Chieh Huang\*, **Ping-Chun Hsieh**, Kuo-Hao Ho\*, and I-Chen Wu, “PPO-Clip Attains Global Optimality: Towards Deeper Understandings of Clipping,” in *Proceedings of AAAI Conference on Artificial Intelligence (AAAI)*, 2024.
16. Kuo-Hao Ho\*, **Ping-Chun Hsieh**, Chiu-Chou Lin, You-Ren Luo, Feng-Jian Wang, and I-Chen Wu, “Towards Human-Like RL: Taming Non-Naturalistic Behavior in Deep RL via Adaptive Behavioral Costs in 3D Games,” in *Proceedings of Asian Conference on Machine Learning (ACML)*, 2023.
17. Yun-Hsuan Lien\*, **Ping-Chun Hsieh**, and Yu-Shuen Wang, “Revisiting Domain Randomization via Relaxed State-Adversarial Policy Optimization,” in *Proceedings of International Conference on Machine Learning (ICML)*, 2023. (**Hon Hai Technology Award**)
18. Wei Hung\*, Bo-Kai Huang\*, **Ping-Chun Hsieh**, and Xi Liu, “Q-Pensieve: Boosting Sample Efficiency of Multi-Objective RL Through Memory Sharing of Q-Snapshots,” in *International Conference on Learning Representations (ICLR)*, 2023.
19. Hsin-En Su\*, Yen-Ju Chen\*, **Ping-Chun Hsieh**, and Xi Liu, “Coordinate Ascent for Off-Policy RL with Global Convergence Guarantees,” in *Proceedings of International Conference on Artificial Intelligence and Statistics (AISTATS)*, 2023
20. Yu-Heng Hung\* and **Ping-Chun Hsieh**, “Reward-Biased Maximum Likelihood Estimation for Neural Contextual Bandits: A Distributional Learning Perspective,” in *Proceedings of AAAI Conference on Artificial Intelligence (AAAI)*, 2023.
21. Yung-Han Ho, Chia-Hao Kao, Wen-Hsiao Peng, and **Ping-Chun Hsieh**, “Neural Frank-Wolfe Policy Optimization for Region-of-Interest Intra-Frame Coding with HEVC/H.265,” in *Proceedings of IEEE Visual Communications and Image Processing (VCIP)*, 2022.
22. Bing-Jing Hsieh\*, **Ping-Chun Hsieh**, and Xi Liu, “Reinforced Few-Shot Acquisition Function Learning for Bayesian Optimization,” in *Proceedings of Conference on Neural Information Processing Systems (NeurIPS)*, 2021.
23. Khaled Nakhleh, Santosh Ganji, **Ping-Chun Hsieh**, I-Hong Hou, and Srinivas Shakkottai, “NeurWIN: Neural Whittle Index Network For Restless Bandits Via Deep RL,” in *Proceedings of Conference on Neural Information Processing Systems (NeurIPS)*, 2021.

24. Jyun-Li Lin\*, Wei Hung\*, Shang-Hsuan Yang\*, **Ping-Chun Hsieh**, and Xi Liu, “Escaping from Zero Gradient: Revisiting Action-Constrained Reinforcement Learning via Frank-Wolfe Policy Optimization,” in *Proceedings of Conference on Uncertainty in Artificial Intelligence (UAI)*, 2021
25. Yu-Heng Hung\*, **Ping-Chun Hsieh**, Xi Liu, and P. R. Kumar, “Reward-Biased Maximum Likelihood Estimation for Linear Stochastic Bandits,” in *Proceedings of AAAI Conference on Artificial Intelligence (AAAI)*, 2021.
26. Daojing Guo, **Ping-Chun Hsieh**, and I-Hong Hou, “Optimal Wireless Scheduling for Remote Sensing Through Brownian Approximation,” in *Proceedings of IEEE International Conference on Computer Communications (INFOCOM)*, 2021.
27. Xi Liu<sup>†</sup>, **Ping-Chun Hsieh**<sup>†</sup>, Yu-Heng Hung\*, Anirban Bhattacharya, and P. R. Kumar, “Exploration Through Reward Biasing: Reward-Biased Maximum Likelihood Estimation for Stochastic Multi-Armed Bandits,” in *Proceedings of International Conference on Machine Learning (ICML)*, 2020. (†: equal contributions)
28. **Ping-Chun Hsieh**, Xi Liu, and I-Hong Hou, “Fresher Content or Smoother Playback? A Brownian-Approximation Framework for Scheduling Real-Time Wireless Video Streams,” in *Proceedings of ACM International Symposium on Mobile Ad Hoc Networking and Computing (MobiHoc)*, 2020. (**Best Paper Award**)
29. **Ping-Chun Hsieh**<sup>†</sup>, Xi Liu<sup>†</sup>, Anirban Bhattacharya, and P. R. Kumar, “Stay With Me: Lifetime Maximization Through Heteroscedastic Linear Bandits With Reneging,” in *Proceedings of International Conference on Machine Learning (ICML)*, 2019. (†: equal contributions)
30. Xi Liu, **Ping-Chun Hsieh**, Nick Duffield, Rui Chen, Muhe Xie, and Xidao Wen, “Real-Time Streaming Graph Embedding Through Local Actions,” in *Proceedings of World Wide Web Conference (WWW) DL4G-SDE Workshop*, 2019.
31. **Ping-Chun Hsieh** and I-Hong Hou, “Heavy-Traffic Analysis of QoE Optimality for On-Demand Video Streams Over Fading Channels,” *IEEE Transactions on Networking*, Vol. 26, pp. 1768-1781, June 2018.
32. **Ping-Chun Hsieh** and I-Hong Hou, “A Decentralized Medium Access Protocol for Real-Time Wireless Ad Hoc Networks With Unreliable Transmissions,” in *Proceedings of IEEE International Conference on Distributed Computing Systems (ICDCS)*, April 2018.
33. Simon Yau, **Ping-Chun Hsieh**, Rajarshi Bhattacharyya, Kartic Bhargav, Srinivas Shakkottai, I-Hong Hou, and P. R. Kumar, “PULS: Processor-Supported Ultra-Low Latency Scheduling,” in *Proceedings of ACM International Symposium on Mobile Ad Hoc Networking and Computing (MobiHoc)*, March 2018. (acceptance rate = 17%, **Best Paper Finalist**)
34. **Ping-Chun Hsieh**, Yupeng Jia, Darwin Parra, and Prabha Aithal, “An Experimental Study on Coverage Enhancement of LTE Cat-M1 for Machine-Type Communication,” in *Proceedings of IEEE International Conference on Communications (ICC)*, January 2018.
35. **Ping-Chun Hsieh**, Xi Liu, Jian Jiao, I-Hong Hou, Yunlong Zhang, and P.R. Kumar, “Throughput-Optimal Scheduling for Networked Transportation Systems With Switch-Over Delay,” in *Proceedings of ACM International Symposium on Mobile Ad Hoc Networking and Computing (MobiHoc)*, July 2017. (**Best Paper Award**)
36. I-Hong Hou and **Ping-Chun Hsieh**, “The Capacity of QoE for Wireless Networks with Unreliable Transmissions,” *Queueing Systems: Theory and Applications (QUESTA)*, May 2017.
37. **Ping-Chun Hsieh** and I-Hong Hou, “Heavy-Traffic Analysis of QoE Optimality for On-Demand Video Streams Over Fading Channels,” in *Proceedings of IEEE International Conference on Computer Communications (INFOCOM)*, April 2016. (acceptance rate = 18%)
38. I-Hong Hou and **Ping-Chun Hsieh**, “QoE-Optimal Scheduling for On-Demand Video Streams over Unreliable Wireless Networks,” in *Proceedings of ACM International Symposium on Mobile Ad Hoc Networking and Computing (MobiHoc)*, June 2015. (acceptance rate = 14.8%)

39. Simon Yau, Liang Ge, **Ping-Chun Hsieh**, I-Hong Hou, Shuguang Cui, P. R. Kumar, Amal Ekbal, and Nikhil Kundargi, “WiMAC: Rapid Implementation Platform for User Definable MAC Protocols Through Separation,” in *Proceedings of ACM SIGCOMM (Demo paper)*, August 2015.

**Professional Services**    **TPC Member / Area Chair of International Conferences**

- **Area Chair**, International Conference on Learning Representations (ICLR), 2026
- **TPC Member**, ACM International Symposium on Theory, Algorithmic Foundations, and Protocol Design for Mobile Networks and Mobile Computing (MobiHoc), 2026
- **TPC Member**, International Conference on Network Protocols (ICNP), 2023

**Organizing Committee of Conferences and Seminars**

- **Workshop Co-Chair**, Asian Conference on Machine Learning (ACML), 2025
- **Publication Chair**, IEEE Conference on Dependable and Secure Computing (DSC), 2025
- **Workshop Session Co-Chair**, International Computer Symposium (ICS), 2024
- **Organizing Committee Member**, NYCU Brain and AI Colloquium, 2023
- **Organizing Committee Member**, UI-NYCU H&J Global Chair Seminar, 2022
- **Organizing Committee Member**, Asia-Pacific Network Operations and Management Symposium (APNOMS), 2020 and 2021
- **Session Host**, Machine Learning Summer School, 2021

**Conference Reviewers**

- Conference on Neural Information Processing Systems (NeurIPS)
- International Conference on Machine Learning (ICML)
- International Conference on Learning Representations (ICLR)
- International Conference on Artificial Intelligence and Statistics (AISTATS)
- ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD)
- European Conference on Machine Learning and Principles and Practice of Knowledge Discovery in Databases (ECML-PKDD)
- International Conference on Robotics and Automation (ICRA)

**Journal Reviewers**

- IEEE Transactions on Mobile Computing (TMC)
- IEEE Transactions on Networking (ToN)
- IEEE Transactions on Vehicular Technology (TVT)
- IEEE Transactions on Communications (TCOMM)
- IEEE Transactions on Cognitive Communications and Networking (TCCN)
- IEEE Transactions on Multimedia (TMM)
- ACM Computing Surveys (CUSR)
- Transactions on Machine Learning Research (TMLR)