

Hsuan-Tien Lin

林軒田

National Taiwan University, Room 314, CSIE Building,
#1 Roosevelt Rd. Sec. 4, Taipei 106, Taiwan
+886(2)33664888x314

htlin@csie.ntu.edu.tw
<http://www.csie.ntu.edu.tw/~htlin>
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CURRENT POSITIONS

National Taiwan University, Taipei, Taiwan

Cyberlink/Perfect Endowed Chair Professor, Department of
Computer Science and Information Engineering August 2022–present

Professor, Department of Computer Science and Information Engineering
August 2017–present

Adjunct Professor, Graduate Institute of Networking and Multimedia
August 2017–present

Appier, Taipei, Taiwan

Chief Data Science Consultant March 2019–present

PAST POSITIONS

University of California, Davis, CA, USA

Visiting Research Scholar July 2022–January 2023

Appier, Taipei, Taiwan

Chief Data Scientist February 2016–February 2019

Consultant May 2014–January 2016

National Taiwan University, Taipei, Taiwan

Department Mentor, Department of Computer Science and Information Engineering
August 2021–July 2022

Associate Chair, Department of Computer Science and Information Engineering
August 2020–May 2022

Associate Professor, Department of Computer Science and Information Engineering
August 2012–July 2017

Adjunct Associate Professor, Graduate Institute of Networking and Multimedia
August 2012–July 2017

Assistant Professor, Department of Computer Science and Information Engineering
August 2008–July 2012

Adjunct Assistant Professor, Graduate Institute of Networking and Multimedia
August 2008–July 2012

EDUCATION

California Institute of Technology, Pasadena, CA, USA

Ph.D. in Computer Science June 2008

M.S. in Computer Science June 2005

National Taiwan University, Taipei, Taiwan

B.S. in Computer Science and Information Engineering June 2001

RESEARCH INTERESTS

- Machine Learning Theory: analyzing the generalization performance of learning systems
- Machine Learning Algorithms: improving existing algorithms including boosting, neural networks, support vector machines; proposing more efficient and more effective learning algorithms
- Machine Learning Applications: designing practical machine learning solutions that suit specific application needs

BOOK

- [1] Yaser S. Abu-Mostafa, Malik Magdon-Ismail, and **Hsuan-Tien Lin**, *Learning from Data: A Short Course* (AMLBook, March 2012), ISBN: 978-1600490064

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- [57] Wei-I Lin and **Hsuan-Tien Lin**, “Reduction from Complementary-Label Learning to Probability Estimates,” in *Proceedings of the Pacific-Asia Conference on Knowledge Discovery and Data Mining (PAKDD)* (May 2023)
- [56] Sheng-Feng Wu and **Hsuan-Tien Lin**, “Improving Clustering Uncertainty-weighted Embeddings for Active Domain Adaptation,” in *Proceedings of the Conference on Technologies and Applications for Artificial Intelligence (TAAI)* (December 2022)
- [55] Si-An Chen, Jie-Jyun Liu, Tsung-Han Yang, **Hsuan-Tien Lin**, and Chih-Jen Lin, “Even the Simplest Baseline Needs Careful Re-investigation: A Case Study on XML-CNN,” in *Proceedings of the Conference of the North American Chapter of the Association for Computational Linguistics (NAACL)* (July 2022), 1987–2000
- [54] Si-An Chen, Chun-Liang Li, and **Hsuan-Tien Lin**, “A Unified View of cGANs with and without Classifiers,” in *Advances in Neural Information Processing Systems: Proceedings of the 2021 Conference (NeurIPS)*, vol. 34 (December 2021), 27566–27579
- [53] Ashesh, Chu-Song Chen, and **Hsuan-Tien Lin**, “360-Degree Gaze Estimation in the Wild Using Multiple Zoom Scales,” in *Proceedings of the British Machine Vision Conference (BMVC)* (November 2021), 372
- [52] Ching-Yuan Bai, **Hsuan-Tien Lin**, Colin Raffel, and Wendy Chih-wen Kan, “On Training Sample Memorization: Lessons from Benchmarking Generative Modeling with a Large-scale Competition,” in *Proceedings of the 27th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD)* (August 2021), 2534–2542
- [51] Yu-Ying Chou, **Hsuan-Tien Lin**, and Tyng-Luh Liu, “Adaptive and Generative Zero-shot Learning,” in *Proceedings of the International Conference on Learning Representations (ICLR)* (May 2021)

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- [50] Chun-Yi Tu and **Hsuan-Tien Lin**, “Cost Learning Network for Imbalanced Classification,” in *Proceedings of the Conference on Technologies and Applications for Artificial Intelligence (TAAI)* (November 2020), 47–51
- [49] Yu-An Chung, Shao-Wen Yang, and **Hsuan-Tien Lin**, “Cost-Sensitive Deep Learning with Layer-Wise Cost Estimation,” in *Proceedings of the Conference on Technologies and Applications for Artificial Intelligence (TAAI)*, Winner of the best paper award (November 2020)
- [48] Michelle Yuan, **Hsuan-Tien Lin**, and Jordan Boyd-Graber, “Cold-start Active Learning through Self-supervised Language Modeling,” in *Proceedings of the Conference on Empirical Methods in Natural Language Processing (EMNLP)* (November 2020)
- [47] Kuen-Han Tsai and **Hsuan-Tien Lin**, “Learning from Label Proportions with Consistency Regularization,” in *Proceedings of the Asian Conference on Machine Learning (ACML)* (November 2020)
- [46] Chi-Chang Lee, Yu-Chen Lin, **Hsuan-Tien Lin**, Hsin-Min Wang, and Yu Tsao, “SERIL: Noise Adaptive Speech Enhancement using Regularization-based Incremental Learning,” in *Proceedings of the Conference of the International Speech Communication Association (INTERSPEECH)* (October 2020)
- [45] Ching-Yuan Bai, Buo-Fu Chen, and **Hsuan-Tien Lin**, “Benchmarking Tropical Cyclone Rapid Intensification with Satellite Images and Attention-based Deep Models,” in *Proceedings of the European Conference on Machine Learning and Principles and Practice of Knowledge Discovery in Databases (ECML/PKDD)* (September 2020)
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- [42] Yu-Shao Peng, Kai-Fu Tang, **Hsuan-Tien Lin**, and Edward Y. Chang, “REFUEL: Exploring Sparse Features in Deep Reinforcement Learning for Fast Disease Diagnosis,” in *Advances in Neural Information Processing Systems: Proceedings of the 2018 Conference (NeurIPS)* (December 2018)
- [41] Hsien-Chun Chiu and **Hsuan-Tien Lin**, “Multi-label Classification with Feature-aware Cost-sensitive Label Embedding,” in *Proceedings of the Conference on Technologies and Applications for Artificial Intelligence (TAAI)* (November 2018), 40–45
- [40] Boyo Chen, Buo-Fu Chen, and **Hsuan-Tien Lin**, “Rotation-blended CNNs on a New Open Dataset for Tropical Cyclone Image-to-intensity Regression,” in *Proceedings of the 24th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD)* (August 2018), 90–99

- [39] Yao-Yuan Yang, Kuan-Hao Huang, Chih-Wei Chang, and **Hsuan-Tien Lin**, “Cost-Sensitive Reference Pair Encoding for Multi-Label Learning,” in *Proceedings of the Pacific-Asia Conference on Knowledge Discovery and Data Mining (PAKDD)* (June 2018), 143–155
- [38] Yong-Siang Shih, Kai-Yueh Chang, **Hsuan-Tien Lin**, and Min Sun, “Compatibility Family Learning for Item Recommendation and Generation,” in *Proceedings of the AAAI Conference on Artificial Intelligence (AAAI)* (February 2018)
- [37] Cheng-Yu Hsieh, Yi-An Lin, and **Hsuan-Tien Lin**, “A Deep Model with Local Surrogate Loss for General Cost-sensitive Multi-label Learning,” in *Proceedings of the AAAI Conference on Artificial Intelligence (AAAI)* (February 2018), 3239–3246
- [36] Kuo-Hsuan Lo and **Hsuan-Tien Lin**, “Cost-sensitive Encoding for Label Space Dimension Reduction Algorithms on Multi-label Classification,” in *Proceedings of the Conference on Technologies and Applications for Artificial Intelligence (TAAI)* (December 2017)
- [35] Yi-An Lin and **Hsuan-Tien Lin**, “Cyclic Classifier Chain for Cost-Sensitive Multilabel Classification,” in *Proceedings of the IEEE International Conference on Data Science and Advanced Analytics (DSAA)* (October 2017)
- [34] Hong-Min Chu and **Hsuan-Tien Lin**, “Can Active Learning Experience Be Transferred?,” in *Proceedings of the IEEE International Conference on Data Mining (ICDM)* (December 2016), 841–846
- [33] Kuan-Hao Huang and **Hsuan-Tien Lin**, “A Novel Uncertainty Sampling Algorithm for Cost-sensitive Multiclass Active Learning,” in *Proceedings of the IEEE International Conference on Data Mining (ICDM)* (December 2016), 925–930
- [32] Chih-Kuan Yeh and **Hsuan-Tien Lin**, “Automatic Bridge Bidding Using Deep Reinforcement Learning,” in *Proceedings of the 22nd European Conference on Artificial Intelligence (ECAI)* (September 2016), 1362–1369
- [31] Yu-An Chung, **Hsuan-Tien Lin**, and Shao-Wen Yang, “Cost-aware Pre-training for Multiclass Cost-sensitive Deep Learning,” in *Proceedings of the 25th International Joint Conference on Artificial Intelligence (IJCAI)* (July 2016), 1411–1417
- [30] Chun-Liang Li, **Hsuan-Tien Lin**, and Chi-Jen Lu, “Rivalry of Two Families of Algorithms for Memory-Restricted Streaming PCA,” in *Proceedings of the 19th International Conference on Artificial Intelligence and Statistics (AISTATS)* (June 2016), 473–481
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- [28] Sheng-Chi You and **Hsuan-Tien Lin**, “A Simple Unlearning Framework for Online Learning under Concept Drifts,” in *Proceedings of the Pacific-Asia Conference on Knowledge Discovery and Data Mining (PAKDD)*, vol. 1 (April 2016), 115–126
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- [24] **Hsuan-Tien Lin**, “Reduction from Cost-Sensitive Multiclass Classification to One-versus-One Binary Classification,” in *Proceedings of the Asian Conference on Machine Learning (ACML)*, vol. 39, JMLR Workshop and Conference Proceedings (November 2014), 371–386
- [23] Chun-Liang Li and **Hsuan-Tien Lin**, “Condensed Filter Tree for Cost-Sensitive Multi-Label Classification,” in *Proceedings of the International Conference on Machine Learning (ICML)* (June 2014), 423–431
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- [20] Ken-Yi Lin, Te-Kang Jan, and **Hsuan-Tien Lin**, “Data Selection Techniques for Large-scale RankSVM,” in *Proceedings of the Conference on Technologies and Applications for Artificial Intelligence (TAAI)* (December 2013), 25–30
- [19] Ya-Hsuan Chang and **Hsuan-Tien Lin**, “Pairwise Regression with Upper Confidence Bound for Contextual Bandit with Multiple Actions,” in *Proceedings of the Conference on Technologies and Applications for Artificial Intelligence (TAAI)* (December 2013), 19–24
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- [17] Wei-Yuan Shen and **Hsuan-Tien Lin**, “Active Sampling of Pairs and Points for Large-scale Linear Bipartite Ranking,” in *Proceedings of the Asian Conference on Machine Learning (ACML)*, vol. 29, JMLR Workshop and Conference Proceedings (November 2013), 388–403
- [16] Yao-Nan Chen and **Hsuan-Tien Lin**, “Feature-aware Label Space Dimension Reduction for Multi-label Classification,” in *Advances in Neural Information Processing Systems: Proceedings of the 2012 Conference (NeurIPS)* (December 2012), 1529–1537

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- [15] Chun-Liang Li, Chun-Sung Ferng, and **Hsuan-Tien Lin**, “Active Learning with Hinted Support Vector Machine,” in *Proceedings of the Asian Conference on Machine Learning (ACML)*, vol. 25, JMLR Workshop and Conference Proceedings (November 2012), 221–235
- [14] Te-Kang Jan, Da-Wei Wang, Chi-Hung Lin, and **Hsuan-Tien Lin**, “A Simple Methodology of Soft Cost-sensitive Classification,” in *Proceedings of the 18th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD)* (August 2012), 141–149
- [13] Shang-Tse Chen, **Hsuan-Tien Lin**, and Chi-Jen Lu, “An Online Boosting Algorithm with Theoretical Justifications,” in *Proceedings of the International Conference on Machine Learning (ICML)* (June 2012)
- [12] Chen-Wei Hung and **Hsuan-Tien Lin**, “Multi-label Active Learning with Auxiliary Learner,” in *Proceedings of the Asian Conference on Machine Learning (ACML)*, vol. 20, JMLR Workshop and Conference Proceedings (November 2011), 315–330
- [11] Chun-Sung Ferng and **Hsuan-Tien Lin**, “Multi-label Classification with Error-correcting Codes,” in *Proceedings of the Asian Conference on Machine Learning (ACML)*, vol. 20, JMLR Workshop and Conference Proceedings (November 2011), 281–295
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- [9] Yin-Hsi Kuo, **Hsuan-Tien Lin**, Wen-Huang Cheng, Yi-Hsuan Yang, and Winston H. Hsu, “Unsupervised Auxiliary Visual Words Discovery for Large-Scale Image Object Retrieval,” in *Proceedings of the IEEE Computer Society Conference on Computer Vision and Pattern Recognition (CVPR)* (June 2011), 905–912
- [8] Han-Hsing Tu and **Hsuan-Tien Lin**, “One-sided Support Vector Regression for Multiclass Cost-sensitive Classification,” in *Proceedings of the 27th International Conference on Machine Learning (ICML)* (June 2010), 1095–1102
- [7] Ling Li and **Hsuan-Tien Lin**, “Optimizing 0/1 Loss for Perceptrons by Random Coordinate Descent,” in *Proceedings of the 2007 International Joint Conference on Neural Networks (IJCNN)* (August 2007), 749–754
- [6] Ling Li and **Hsuan-Tien Lin**, “Ordinal Regression by Extended Binary Classification,” in *Advances in Neural Information Processing Systems : Proceedings of the 2006 Conference (NeurIPS)* (December 2006), 865–872
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- [4] **Hsuan-Tien Lin** and Ling Li, “Novel Distance-Based SVM Kernels for Infinite Ensemble Learning,” in *Proceedings of the 12th International Conference on Neural Information Processing (ICONIP)* (November 2005), 761–766

- [3] Ling Li, Amrit Pratap, **Hsuan-Tien Lin**, and Yaser S. Abu-Mostafa, “Improving Generalization by Data Categorization,” in *Knowledge Discovery in Databases (PKDD)*, vol. 3721, Lecture Notes in Computer Science (November 2005), 157–168
- [2] **Hsuan-Tien Lin** and Ling Li, “Infinite Ensemble Learning with Support Vector Machines,” in *Machine Learning: Proceedings of the 16th European Conference on Machine Learning (ECML)*, vol. 3720, Lecture Notes in Computer Science (October 2005), 242–254
- [1] Shuo-Peng Liao, **Hsuan-Tien Lin**, and Chih-Jen Lin, “A Note on the Decomposition Methods for Support Vector Regression,” in *Proceedings of the 2001 International Joint Conference on Neural Networks (IJCNN)* (July 2001), 1474–1479

JOURNAL PAPERS

- [20] Chien-Min Yu, Ming-Hsin Chen, and **Hsuan-Tien Lin**, “Learning Key Steps to Attack Deep Reinforcement Learning Agents,” *Machine Learning*, 2023,
- [19] Ashesh, Chia-Tung Chang, Buo-Fu Chen, **Hsuan-Tien Lin**, Boyo Chen, and Treng-Shi Huang, “Accurate and Clear Quantitative Precipitation Nowcasting Based on a Deep Learning Model with Consecutive Attention and Rainmap Discrimination,” *Artificial Intelligence for the Earth Systems* 1, no. 3 (July 2022): 1–19
- [18] Si-An Chen, Voot Tangkaratt, **Hsuan-Tien Lin**, and Masashi Sugiyama, “Active Deep Q-learning with Demonstration,” *Machine Learning* 109, nos. 9–10 (September 2020): 1699–1725
- [17] Tsung-Yi Pan, **Hsuan-Tien Lin**, and Hao-Yu Liao, “A Data-Driven Probabilistic Rainfall-Inundation Model for Flash-Flood Warnings,” *Water* 11, no. 12 (November 2019): 2534
- [16] Hong-Min Chu, Kuan-Hao Huang, and **Hsuan-Tien Lin**, “Dynamic Principal Projection for Cost-Sensitive Online Multi-Label Classification,” *Machine Learning* 108, nos. 8–9 (September 2019): 1193–1230
- [15] Yu-Lin Tsou and **Hsuan-Tien Lin**, “Annotation Cost-sensitive Active Learning by Tree Sampling,” *Machine Learning* 108, no. 5 (May 2019): 785–807
- [14] Chih-Kuan Yeh, Cheng-Yu Hsieh, and **Hsuan-Tien Lin**, “Automatic Bridge Bidding Using Deep Reinforcement Learning,” *IEEE Transactions on Games* 10, no. 4 (December 2018): 365–377
- [13] Kuan-Hao Huang and **Hsuan-Tien Lin**, “Cost-Sensitive Label Embedding for Multi-Label Classification,” *Machine Learning* 106, nos. 9–10 (October 2017): 1725–1746
- [12] Yu-Ping Wu and **Hsuan-Tien Lin**, “Progressive k -Labelsets for Cost-Sensitive Multi-Label Classification,” *Machine Learning* 106, no. 5 (May 2017): 671–694
- [11] Chun-Liang Li, Chun-Sung Ferng, and **Hsuan-Tien Lin**, “Active Learning Using Hint Information,” *Neural Computation* 27, no. 8 (August 2015): 1738–1765
- [10] Chun-Liang Li, Yu-Chuan Su, Ting-Wei Lin, Cheng-Hao Tsai, Wei-Cheng Chang, Kuan-Hao Huang, Tzu-Ming Kuo, Shan-Wei Lin, Young-San Lin, Yu-Chen Lu, Chun-Pai Yang, Cheng-Xia Chang, Wei-Sheng Chin, Yu-Chin Juan, Hsiao-Yu

- Tung, Jui-Pin Wang, Cheng-Kuang Wei, Felix Wu, Tu-Chun Yin, Tong Yu, Yong Zhuang, Shou-De Lin, **Hsuan-Tien Lin**, and Chih-Jen Lin, “Combination of Feature Engineering and Ranking Models for Paper-Author Identification in KDD Cup 2013,” Extended first-place winner report of KDD Cup 2013 track 1, *Journal of Machine Learning Research* 16, no. 12 (December 2015): 2921–2947
- [9] Wei-Sheng Chin, Yu-Chin Juan, Yong Zhuang, Felix Wu, Hsiao-Yu Tung, Tong Yu, Jui-Pin Wang, Cheng-Xia Chang, Chun-Pai Yang, Wei-Cheng Chang, Kuan-Hao Huang, Tzu-Ming Kuo, Shan-Wei Lin, Young-San Lin, Yu-Chen Lu, Yu-Chuan Su, Cheng-Kuang Wei, Tu-Chun Yin, Chun-Liang Li, Ting-Wei Lin, Cheng-Hao Tsai, Shou-De Lin, **Hsuan-Tien Lin**, and Chih-Jen Lin, “Effective String Processing and Matching for Author Disambiguation,” Extended first-place winner report of KDD Cup 2013 track 2, *Journal of Machine Learning Research* 15, no. 10 (October 2014): 3037–3064
- [8] Yu-Xun Ruan, **Hsuan-Tien Lin**, and Ming-Feng Tsai, “Improving Ranking Performance with Cost-sensitive Ordinal Classification via Regression,” *Information Retrieval* 17, no. 1 (February 2014): 1–20
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- [6] Farbound Tai and **Hsuan-Tien Lin**, “Multilabel Classification with Principal Label Space Transformation,” *Neural Computation* 24, no. 9 (September 2012): 2508–2542
- [5] Yin-Hsi Kuo, Wen-Huang Cheng, **Hsuan-Tien Lin**, and Winston H. Hsu, “Unsupervised Semantic Feature Discovery for Image Object Retrieval and Tag Refinement,” *IEEE Transactions on Multimedia* 14, no. 4 (August 2012): 1079–1090
- [4] **Hsuan-Tien Lin** and Ling Li, “Reduction from Cost-sensitive Ordinal Ranking to Weighted Binary Classification,” *Neural Computation* 24, no. 5 (May 2012): 1329–1367
- [3] **Hsuan-Tien Lin** and Ling Li, “Support Vector Machinery for Infinite Ensemble Learning,” *Journal of Machine Learning Research* 9, no. 2 (February 2008): 285–312
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- [14] Si-An Chen, Chun-Liang Li, and **Hsuan-Tien Lin**, “Improving Model Compatibility of Generative Adversarial Networks by Boundary Calibration,” in *Proceedings of the*

- Workshop on Deep Generative Models and Downstream Applications @ NeurIPS* (December 2021)
- [13] Chia-You Chen, **Hsuan-Tien Lin**, Gang Niu, and Masashi Sugiyama, “On the Role of Pre-training for Meta Few-Shot Learning,” in *Proceedings of the 5th Workshop on Meta-Learning @ NeurIPS* (December 2021)
- [12] I-Ting Chen and **Hsuan-Tien Lin**, “Improving Unsupervised Domain Adaptation with Representative Selection Techniques,” in *Proceedings of the Workshop on Interactive Adaptive Learning @ ECML/PKDD* (September 2020), 5–21
- [11] Ching-Yuan Bai, Buo-Fu Chen, and **Hsuan-Tien Lin**, “Attention-based Deep Tropical Cyclone Rapid Intensification Prediction,” in *Proceedings of the Workshop on Machine Learning for Earth Observation @ ECML/PKDD* (September 2019)
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- [9] Yao-Yuan Yang, Yi-An Lin, Hong-Min Chu, and **Hsuan-Tien Lin**, “Deep Learning with a Rethinking Structure for Multi-label Classification,” in *Proceedings of the Workshop on Multi-output Learning @ ACML* (November 2018)
- [8] Chun-Yen Ho and **Hsuan-Tien Lin**, “Contract Bridge Bidding by Learning,” in *Proceedings of the Workshop on Computer Poker and Imperfect Information @ AAAI* (January 2015), 30–36
- [7] Todd G. McKenzie, Chun-Sung Ferng, Yao-Nan Chen, Chun-Liang Li, Cheng-Hao Tsai, Kuan-Wei Wu, Ya-Hsuan Chang, Chung-Yi Li, Wei-Shih Lin, Shu-Hao Yu, Chieh-Yen Lin, Po-Wei Wang, Chia-Mau Ni, Wei-Lun Su, Tsung-Ting Kuo, Chen-Tse Tsai, Po-Lung Chen, Rong-Bing Chiu, Ku-Chun Chou, Yu-Cheng Chou, Chien-Chih Wang, Chen-Hung Wu, **Hsuan-Tien Lin**, Chih-Jen Lin, and Shou-De Lin, “Novel Models and Ensemble Techniques to Discriminate Favorite Items from Unrated Ones for Personalized Music Recommendation,” in *Proceedings of the KDD Cup 2011 Workshop*, vol. 18, JMLR Workshop and Conference Proceedings, First-place winner report of KDD Cup 2011 track 2 (May 2012), 101–135
- [6] Po-Lung Chen, Chen-Tse Tsai, Yao-Nan Chen, Ku-Chun Chou, Chun-Liang Li, Cheng-Hao Tsai, Kuan-Wei Wu, Yu-Cheng Chou, Chung-Yi Li, Wei-Shih Lin, Shu-Hao Yu, Rong-Bing Chiu, Chieh-Yen Lin, Chien-Chih Wang, Po-Wei Wang, Wei-Lun Su, Chen-Hung Wu, Tsung-Ting Kuo, Todd G. McKenzie, Ya-Hsuan Chang, Chun-Sung Ferng, Chia-Mau Ni, **Hsuan-Tien Lin**, Chih-Jen Lin, and Shou-De Lin, “A Linear Ensemble of Individual and Blended Models for Music Rating Prediction,” in *Proceedings of the KDD Cup 2011 Workshop*, vol. 18, JMLR Workshop and Conference Proceedings, First-place winner report of KDD Cup 2011 track 1 (May 2012), 21–60
- [5] Hsiang-Fu Yu, Hung-Yi Lo, Hsun-Ping Hsieh, Jing-Kai Lou, Todd G. McKenzie, Jung-Wei Chou, Po-Han Chung, Chia-Hua Ho, Chun-Fu Chang, Yin-Hsuan Wei, Jui-Yu Weng, En-Syu Yan, Che-Wei Chang, Tsung-Ting Kuo, Yi-Chen Lo, Po Tzu Chang, Chieh Po, Chien-Yuan Wang, Yi-Hung Huang, Chen-Wei Hung, Yu-Xun

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- [3] Hung-Yi Lo, Kai-Wei Chang, Shang-Tse Chen, Tsung-Hsien Chiang, Chun-Sung Ferng, Cho-Jui Hsieh, Yi-Kuang Ko, Tsung-Ting Kuo, Hung-Che Lai, Ken-Yi Lin, Chia-Hsuan Wang, Hsiang-Fu Yu, Chih-Jen Lin, **Hsuan-Tien Lin**, and Shou-De Lin, “An Ensemble of Three Classifiers for KDD Cup 2009: Expanded Linear Model, Heterogeneous Boosting, and Selective Naïve Bayes,” in *Proceedings of KDD-Cup 2009 competition*, vol. 7, JMLR Workshop and Conference Proceedings, Third-place winner report of KDD Cup 2009 slow track (June 2009), 57–64
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- [10] Cheng-Yu Hsieh, Wei-I Lin, Miao Xu, Gang Niu, **Hsuan-Tien Lin**, and Masashi Sugiyama, *Active Refinement for Multi-Label Learning: A Pseudo-Label Approach*, technical report (National Taiwan University and RIKEN Center for Advanced Intelligence Project, September 2021)
- [9] Te-Kang Jan, Da-Wei Wang, Chi-Hung Lin, and **Hsuan-Tien Lin**, *Soft Methodology for Cost-and-error Sensitive Classification*, technical report (National Taiwan University and Academia Sinica, October 2017)
- [8] Wei-Yuan Shen and **Hsuan-Tien Lin**, *Active Sampling of Pairs and Points for Large-scale Linear Bipartite Ranking*, technical report (National Taiwan University, August 2017)
- [7] Kuan-Wei Wu, Chun-Sung Ferng, Chia-Hua Ho, An-Chun Liang, Chun-Heng Huang, Wei-Yuan Shen, Jyun-Yu Jiang, Ming-Hao Yang, Ting-Wei Lin, Ching-Pei Lee, Perng-Hwa Kung, Chin-En Wang, Ting-Wei Ku, Chun-Yen Ho, Yi-Shu Tai, I-Kuei Chen, Wei-Lun Huang, Che-Ping Chou, Tse-Ju Lin, Han-Jay Yang, Yen-Kai Wang, Cheng-Te Li, Shou-De Lin, and **Hsuan-Tien Lin**, *A Two-Stage Ensemble of Diverse Models for Advertisement Ranking in KDD Cup 2012*, technical report, First-place winner report of KDD Cup 2012 track 2 (National Taiwan University, August 2012)

- [6] Ku-Chun Chou and **Hsuan-Tien Lin**, *Balancing between Estimated Reward and Uncertainty during News Article Recommendation for ICML 2012 Exploration and Exploitation Challenge*, technical report, First-place winner report of the Exploration and Exploitation Challenge @ ICML 2012 phase 1 (National Taiwan University, June 2012)
- [5] **Hsuan-Tien Lin**, Malik Madgon-Ismael, and Yaser S. Abu-Mostafa, *Teaching Machine Learning to a Diverse Audience: the Foundation-based Approach*, technical report, Presented in the Teaching Machine Learning Workshop @ ICML '12 (National Taiwan University, June 2012)
- [4] Ming-Feng Tsai, Shang-Tse Chen, Yao-Nan Chen, Chun-Sung Ferng, Chia-Hsuan Wang, Tzay-Yeu Wen, and **Hsuan-Tien Lin**, *An Ensemble Ranking Solution to the Yahoo! Learning to Rank Challenge*, technical report, Presented in the Workshop of Yahoo! Learning to Rank Challenge @ ICML '10 (National Taiwan University, June 2010)
- [3] **Hsuan-Tien Lin**, "From Ordinal Ranking to Binary Classification" (PhD diss., California Institute of Technology, June 2008)
- [2] **Hsuan-Tien Lin**, "Infinite Ensemble Learning with Support Vector Machines" (master's thesis, California Institute of Technology, June 2005)
- [1] **Hsuan-Tien Lin** and Chih-Jen Lin, *A Study on Sigmoid Kernels for SVM and the Training of non-PSD Kernels by SMO-type methods*, technical report (National Taiwan University, March 2003)

SOFTWARE

- [1] Yao-Yuan Yang, Shao-Chuan Lee, Yu-An Chung, Tung-En Wu, Si-An Chen, and **Hsuan-Tien Lin**, *libact: Pool-based Active Learning in Python*, technical report (National Taiwan University, October 2017)

TALKS

Machine Learning for Modern Artificial Intelligence

Fubond Securities, Taipei, Taiwan	April 2023
Taiwanese American Industrial Technology Association-Silicon Valley (TAITA-SV) Annual Conference (keynote talk), Fremont, CA, USA	September 2022
Artificial Intelligence and Data Science Workshop, Hualien, Taiwan	January 2022
Winbond Corporation, Hsinchu (virtual), Taiwan	July 2021
International Computer Symposium, Tainan, Taiwan	December 2020
Wistron NeWeb Corporation, Hsinchu, Taiwan	December 2019
Speech Signal Processing Workshop, Taipei, Taiwan	June 2019
Institute of Information Science, Academia Sinica, Taipei, Taiwan	November 2018

Learning for Big Data

Taiwan Association on Cancer Research, New Taipei, Taiwan	July 2022
Department of Information Management, National Taiwan University, Taipei, Taiwan	April 2016
Annual Meeting of Data Science Enthusiasts in Taiwan, Taipei, Taiwan	August 2015
IEEE BigData 2015 Taipei Satellite Session (keynote talk), Taipei, Taiwan	May 2015

Active Learning by Learning

Institute of Information Systems and Applications, National Tsing Hua University, Hsinchu (virtual), Taiwan	March 2022
IEEE Computational Intelligence Society, International Webinar	April 2021
The University of British Columbia (UBC) Centre for Artificial Intelligence Decision-making and Action, International Webinar	January 2021
Information Retrieval Workshop, Taipei, Taiwan	December 2015
Artificial Intelligence Forum, Kaohsiung, Taiwan	June 2015

Learning with Limited Labeled Data

Artificial Intelligence and Data Science Workshop, Hualien, Taiwan	January 2022
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Unbiased Risk Estimators Can Mislead:**A Case Study of Learning with Complementary Labels**

South Taiwan Statistics Conference, Kaohsiung, Taiwan	October 2021
Artificial Intelligence Forum, Taipei (virtual), Taiwan	October 2021

Cost-sensitive Classification: Techniques and Stories

Machine Learning Summer School, Taipei (virtual), Taiwan	August 2021
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MUSE Teaching

Artificial Intelligence Course Program of Ministry of Education, Hsinchu, Taiwan	September 2020
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Making Active Learning Realistic

Weakly-supervised Learning Workshop at Asian Conference on Machine Learning (keynote talk), Nagoya, Japan	November 2019
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Machine Learning Overviews and Applications

Department of Biomechatronics Engineering, National Taiwan University, Taipei, Taiwan	October 2019
Industrial Technology Research Institute, Hsinchu, Taiwan	January 2016
Department of Information Management, Chang Jung Christian University, Tainan, Taiwan	November 2015
Mediatek, Hsinchu, Taiwan	April 2015
Marvell Taiwan, Hsinchu, Taiwan	May 2014

Label Space Coding for Multi-label Classification

RIKEN Center for Advanced Intelligence Project, Tokyo, Japan	August 2019
Taiwan Society for Industrial and Applied Mathematics Annual Meeting, Taipei, Taiwan	May 2018
Institute of Statistics, National University of Kaohsiung, Kaohsiung, Taiwan	December 2017
Institute of Statistical Science, Academia Sinica, Taipei, Taiwan	September 2015
Taiwan Society for Industrial and Applied Mathematics Annual Meeting, Kaohsiung, Taiwan	May 2015
Intel Web Seminar, Taipei, Taiwan	February 2015
Institute of Communications Engineering, National Tsing Hua University, Hsinchu, Taiwan	April 2014
Department of Computer Science, National Chiao Tung University,	

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- Hsinchu, Taiwan May 2013
Institute of Information Science, Academia Sinica, Taipei, Taiwan April 2012
- Advances in Cost-sensitive Multiclass and Multilabel Classification**
ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD) 2019 Tutorial, Anchorage, AK, USA August 2019
- Machine Learning for Artificial Intelligence in Medicine Applications**
Information Technology Office, National Taiwan University Hospital, Taipei, Taiwan July 2019
Division of Hematology and Oncology, Chang Gung Memorial Hospital, New Taipei, Taiwan March 2019
- Mathematical Machine Learning for Modern Artificial Intelligence**
Taiwan Society for Industrial and Applied Mathematics Annual Meeting (plenary talk), Hsinchu, Taiwan May 2019
- Developing the Learning Potential of Machines**
National Taiwan University Center for the Advancement of Science Education, Taipei, Taiwan October 2018
- Teaching Machine Learning: Foundations, Techniques and Project**
Seed AI Instructor Training Camp, Hsinchu, Taiwan September 2018
- Active Learning by Bandit Learning**
National Center for Theoretical Sciences at National Taiwan University, Taipei, Taiwan March 2018
A Symposium on Complex Data Analysis, Hsinchu, Taiwan May 2017
- From Big Data to Artificial Intelligence**
National Taiwan University EiMBA Program Guest Lecture, Taipei, Taiwan March 2018
- From Cloud to Artificial Intelligence**
CIO Value Institute, Taipei, Taiwan March 2018
- Cost-sensitive Classification: Algorithm and Application**
NSYSU AI in Data Science Forum, Kaohsiung, Taiwan December 2017
- Choices for Smarter AI**
PyCon Taiwan (keynote talk), Taipei, Taiwan June 2017
- Quick Tour of Machine Learning**
Lecture Series of Data Science Enthusiasts in Taiwan, Taipei, Taiwan March 2017
Lecture Series of Data Science Enthusiasts in Taiwan, Taipei, Taiwan December 2015
- From Big Data to Artificial Intelligence**
IEEE BigData 2016 Taipei Satellite Session (keynote talk), Taipei, Taiwan May 2016
- My RIGHT-O Lab**
National Taiwan University New Faculty Orientation, Hsitou, Taiwan, September 2015

Competition-Based Final Projects for Enhancing Students' Motivations

National Taiwan University Teaching Series, Taipei, Taiwan, June 2015

Cost-sensitive Multiclass Classification Using One-versus-one Comparisons

Institute of Statistics, National Tsing Hua University, Hsinchu, Taiwan December 2014

The 2nd International Conference on the Interface between Statistics and Engineering,
Tainan, Taiwan June 2012

Institute of Information Science, Academia Sinica, Taipei, Taiwan August 2010

Department of EE, National Tsing Hua University, Hsinchu, Taiwan April 2010

Basics of Machine Learning

Big Data and Machine Learning Summer School, Hsinchu, Taiwan, July 2014

Chien-Kuo Senior High School Talented Class, Taipei, Taiwan, November 2013

My Semi-Flipped Machine Learning Class

National Taiwan University Teaching Series, Taipei, Taiwan, December 2013

Cost-sensitive Classification: Algorithms and Advances

Asian Conference on Machine Learning 2013 Tutorial, Canberra, Australia
November 2013

Cost-sensitive Multiclass Classification via Regression

Department of Civil Engineering, National Taiwan University, Taipei, Taiwan
October 2013

Department of Computer Science and Information Engineering, National Central
University, Taoyuan, Taiwan October 2013

Department of Computer Science, National Cheng Chi University, Taipei, Taiwan
November 2011

Department of Computer Science and Information Engineering, National Taiwan
Normal University, Taipei, Taiwan December 2010

Research Center for Information Technology Innovation, Academia Sinica, Taipei,
Taiwan May 2010

Feature-aware Label Space Dimension Reduction for Multi-label Classification

AI Forum, Taipei, Taiwan, May 2013

Taiwan-Israel Joint Workshop on Artificial Intelligence, Tainan, Taiwan November 2012

Deepening Learning Starts after Class

National Taiwan University Teaching Series, Taipei, Taiwan, March 2013

Improving Ranking Performance with Cost-sensitive Ordinal Classification via Regression

Preference Learning Stream @ EURO 2012, Vilnius, Lithuania, July 2012

Research in the Computational Learning Laboratory: Ordinal Ranking, Cost-sensitive Classification and KDDCup 2011

Plaxie, Taipei, Taiwan November 2011

Solutions and Experiences from KDD Cup 2011: A Linear Ensemble of Individual and Blended Models for Music Rating Prediction

Research Center for Information Technology Innovation, Academia Sinica, Taipei,
Taiwan October 2011

A Simple Algorithm for Cost-sensitive Classification

Department of CSIE, National Taiwan University, Taipei, Taiwan September 2008

From Ordinal Ranking to Binary Classification

Department of Applied Math, National Dong Hwa University, Hualian, Taiwan
February 2010

Department of CSIE, National Taiwan University of Science and Technology, Taipei, Taiwan
March 2009

Microsoft Research Asia, Beijing, China February 2009

Department of CS, National Tsing Hua University, Hsinchu, Taiwan March 2008

Department of CS, National Chiao Tung University, Hsinchu, Taiwan March 2008

Department of CSIE, National Taiwan University, Taipei, Taiwan March 2008

CS Department, California Institute of Technology, Pasadena, CA, USA March 2008

Automatic Ranking by Extended Binary Classification

Institute of Information Science, Academia Sinica, Taipei, Taiwan March 2007

EE Department, California Institute of Technology, Pasadena, CA, USA November 2006

Large-margin Thresholded Ensembles for Ordinal Regression

Machine Learning Summer School Workshop, Taipei, Taiwan
July 2006

Introduction to Support Vector Machines

Speech Processing Laboratory, National Taiwan University, Taipei, Taiwan
November 2005

Infinite Ensemble Learning with Support Vector Machinery

Caltech 2nd Symposium on Vision and Learning,
California Institute of Technology, Pasadena, CA, USA September 2005

Introduction to Boosting and Joint Boosting

Guest Lecture for EE148 Class: “Machine Learning for Computer Vision”,
California Institute of Technology, Pasadena, CA, USA April 2005

TEACHING EXPERIENCE**National Taiwan University on Coursera, Internet**

—*Mandarin-teaching Massive Open Online Courses*

Instructor: Machine Learning Techniques

November 2015, December 2014, March 2020–present

Instructor: Machine Learning Foundations—Algorithmic Foundations

November 2017–present

Instructor: Machine Learning Foundations—Mathematical Foundations

June 2017–present

Instructor: Machine Learning Foundations

September 2015, September 2014, November 2013

National Taiwan University, Taipei, Taiwan

—*with performance recognized by winning the outstanding teaching award of the university in 2011 and 2021, see Selected Honors*

Winter 06-07

- California Institute of Technology**, Pasadena, CA, USA
Teaching Assistant to Professor Yaser S. Abu-Mostafa: Information and Complexity (CS129a) Fall 04-05, Fall 06-07
- National Taiwan University**, Taipei, Taiwan
Research Assistant to Professor Chih-Jen Lin March 2003–June 2003
- Defense Office**, Kinmen, Taiwan
Personnel Officer (Second Lieutenant) July 2001–March 2003
- National Taiwan University**, Taipei, Taiwan
Research Assistant to Professor Chih-Jen Lin September 2000–June 2001
- Websurf Company**, Taipei, Taiwan
Project Manager June 2000–May 2001
- Professional Technology Temple BBS System (PTT)**, Taipei, Taiwan
Root and Core Administrator January 1998–May 2001
- Attila Company**, Taipei, Taiwan
Chief Technology Officer December 1999–October 2000

SELECTED HONORS

- Distinguished Teaching Award, National Taiwan University** 2011, 2021
(the most prestigious teaching award given to only 1% of the total faculty members in the university with a duration of five years)
- Academic Contribution Award, EECS College of National Taiwan University** 2016, 2021
- Outstanding Teaching Award, National Taiwan University** 2016, 2017, 2018, 2019, 2020
- Creative Young Scholar Award, Foundation for the Advancement of Outstanding Scholarship in Taiwan** 2017
- Best Paper Award, TAAI 2015** 2015
(with H.-J. Yang)
- T.-Y. Wu Memorial Award, National Science Council of Taiwan** 2013
- Outstanding Mentoring Award, National Taiwan University** 2013
(the most prestigious mentoring award in the university)
- First Place, Track 2 of KDD Cup 2013** 2013
(with C.-L. Li, Y.-C. Su, T.-W. Lin, C.-H. Tsai, W.-C. Chang, K.-H. Huang, T.-M. Kuo, S.-W. Lin, Y.-S. Lin, Y.-C. Lu, C.-P. Yang, C.-X. Chang, W.-S. Chin, Y.-C. Juan, H.-Y. Tung, J.-P. Wang, C.-K. Wei, F. Wu, T.-C. Yin, T. Yu, Y. Zhuang, S.-D. Lin and C.-J. Lin)

- First Place, Track 1 of KDD Cup 2013** 2013
(with W.-S. Chin, Y.-C. Juan, Y. Zhuang, F. Wu, H.-Y. Tung, T. Yu, J.-P. Wang, C.-X. Chang, C.-P. Yang, W.-C. Chang, K.-H. Huang, T.-M. Kuo, S.-W. Lin, Y.-S. Lin, Y.-C. Lu, Y.-C. Su, C.-K. Wei, T.-C. Yin, C.-L. Li, T.-W. Lin, C.-H. Tsai, S.-D. Lin and C.-J. Lin)
- First Place, Track 2 of KDD Cup 2012** 2012
(with K.-W. Wu, C.-S. Ferng, C.-H. Ho, A.-C. Liang, C.-H. Huang, W.-Y. Shen, J.-Y. Jiang, M.-H. Yang, T.-W. Lin, C.-P. Lee, P.-H. Kung, C.-E. Wang, T.-W. Ku, C.-Y. Ho, Y.-S. Tai, I.-K. Chen, W.-L. Huang, C.-P. Chou, T.-J. Lin, H.-J. Yang, Y.-K. Wang, C.-T. Li and S.-D. Lin)
- K.-T. Li Young Researcher Award, ACM Taipei Chapter and IICM** 2012
- First Place, Track 2 of KDD Cup 2011** 2011
(with T. G. McKenzie, C.-S. Ferng, Y.-N. Chen, C.-L. Li, C.-H. Tsai, K.-W. Wu, Y.-H. Chang, C.-Y. Li, W.-S. Lin, S.-H. Yu, C.-Y. Lin, P.-W. Wang, C.-M. Ni, W.-L. Su, T.-T. Kuo, C.-T. Tsai, P.-L. Chen, R.-B. Chiu, K.-C. Chou, Y.-C. Chou, C.-C. Wang, C.-H. Wu, C.-J. Lin and S.-D. Lin)
- First Place, Track 1 of KDD Cup 2011** 2011
(with P.-L. Chen, C.-T. Tsai, Y.-N. Chen, K.-C. Chou, C.-L. Li, C.-H. Tsai, K.-W. Wu, Y.-C. Chou, C.-Y. Li, W.-S. Lin, S.-H. Yu, R.-B. Chiu, C.-Y. Lin, C.-C. Wang, P.-W. Wang, W.-L. Su, C.-H. Wu, T.-T. Kuo, T. G. McKenzie, Y.-H. Chang, C.-S. Ferng, C.-M. Ni, C.-J. Lin and S.-D. Lin)
- First Place, KDD Cup 2010** 2010
(with H.-F. Yu, H.-Y. Lo, H.-P. Hsieh, J.-K. Lou, T. G. McKenzie, J.-W. Chou, P.-H. Chung, C.-H. Ho, C.-F. Chang, Y.-H. Wei, J.-Y. Weng, E.-S. Yan, C.-W. Chang, T.-T. Kuo, Y.-C. Lo, P.-T. Chang, C. Po, C.-Y. Wang, Y.-H. Huang, C.-W. Hung, Y.-X. Ruan, Y.-S. Lin, S.-D. Lin and C.-J. Lin; also first place of all student teams)
- Third Place, Slow Track of KDD Cup 2009** 2009
(with H.-Y. Lo, K.-W. Chang, S.-T. Chen, T.-H. Chiang, C.-S. Ferng, C.-J. Hsieh, Y.-K. Ko, T.-T. Kuo, H.-C. Lai, K.-Y. Lin, C.-H. Wang, H.-F. Yu, C.-J. Lin and S.-D. Lin)
- President's Award, National Taiwan University** 1997–2001
(7 times, i.e., within the top 5% of the class consecutively in all 7 semesters)
- Second Prize, Trend Million-Dollar Internet Programming Contest** 2000
(with L.-C. Kung, K.-P. Chen, G.-W. Liu, C.-Y. Wu, and J. Lin)
- Asia Champion, ACM International Collegiate Programming Contest** 1999
(also worldwide 10th prize, with L.-C. Kung and K.-P. Chen)

PROFESSIONAL ACTIVITIES

Journal Paper Reviewer

- ACM Transactions on Intelligent Systems and Technology
- ACM Transactions on Knowledge Discovery from Data
- Advances in Artificial Neural Systems

-
- Advances in Operations Research
 - Applied Stochastic Models in Business and Industry
 - Artificial Intelligence
 - Cognitive Computation
 - Computational Statistics and Data Analysis
 - Data Mining and Knowledge Discovery
 - IEEE Computational Intelligence Magazine
 - IEEE Internet of Things Journal
 - IEEE Transactions on Cybernetics
 - IEEE Transactions on Image Processing
 - IEEE Transactions on Information Forensics and Security
 - IEEE Transactions on Information Technology in Biomedicine
 - IEEE Transactions on Knowledge and Data Engineering
 - IEEE Transactions on Neural Networks and Learning Systems
 - IEEE Transactions on Pattern Analysis and Machine Intelligence
 - IEEE Transactions on Systems, Man and Cybernetics—Part B
 - Journal of Artificial Intelligence Research
 - Journal of Information Fusion
 - Journal of Information Science and Engineering
 - Journal of Machine Learning Research
 - Knowledge and Information Systems
 - Knowledge-Based Systems
 - Machine Learning
 - Neural Networks
 - Neurocomputing Journal
 - International Journal of Business Intelligence and Data Mining
 - International Journal of Computational Intelligence Research
 - International Journal of Computational Vision and Robotics
 - International Journal of Electrical Engineering
 - International Journal of Remote Sensing
 - Information Processing Letters
 - Information Sciences
 - Science China—Information Sciences
 - Sensors
 - The Computer Journal

Conference Paper Meta Reviewer: Senior Program Committee (SPC) or Area Chair (AC)

- International Conference on Learning Representations (ICLR)
AC 2021, AC 2022, SAC & Outstanding Paper Committee Member 2023
- International Joint Conferences on Artificial Intelligence (IJCAI)
SPC 2018, SPC 2019, SPC 2020, AC 2021, SPC 2022
 - Distinguished Area Chair 2021
- International Conference on Machine Learning (ICML)
AC 2020, AC 2021, AC 2022
- AAAI Conference on Artificial Intelligence (AAAI) AC 2019, SPC 2021, AC 2022, AC 2023
- Conference on Neural Information Processing Systems (NeurIPS)
AC 2015, AC 2018, AC 2019, AC 2021, AC2023
- Asian Conference on Machine Learning (ACML)
SPC 2014, SPC 2015, SPC 2016, SPC 2017, SPC 2018, SPC 2019

Conference Paper Reviewer

- IEEE Conference on Computer Vision and Pattern Recognition (CVPR) 2006, 2021, 2023
- Conference on Uncertainty in Artificial Intelligence (UAI) 2021, 2022
 - Top Reviewer 2022
 - Top Reviewer 2021
- Artificial Intelligence and Statistics Conference (AISTATS)
2017, 2018, 2019, 2020, 2022
 - Top Reviewer 2022
- British Machine Vision Conference (BMVC) 2021
- European Conference on Machine Learning and Principles and Practice of Knowledge Discovery in Databases (ECML/PKDD) 2011, 2014, 2015, 2021, (Journal Track) 2022, (Journal Track) 2023
- Conference on Technologies and Applications of Artificial Intelligence (TAAI)
2004, 2010, 2011, 2013, 2015-2022
- Pacific-Asia Conference on Knowledge Discovery and Data Mining (PAKDD)
2014, 2015, 2016, 2017, 2018, 2019, 2020
- International Conference on Learning Representations (ICLR) 2018, 2019, 2020
- Workshop on Multi-output Learning (MoL) 2019
- ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD)
2014, 2015, 2016, 2017, 2018, 2019
- International Conference on Machine Learning (ICML) 2015, 2016, 2017, 2018, 2019
- AAAI Conference on Artificial Intelligence (AAAI) 2016, 2017, 2018, 2020
- International Conference on Data Mining (ICDM) 2015, 2018
- IEEE International Conference on Data Science and Advanced Analytics (DSAA)
2015, 2016, 2017, 2018

- Conference on Neural Information Processing Systems (NeurIPS)
2007, 2008, 2009, 2010, 2011, 2013, 2014, 2016, 2017
- ACM International Conference on Information and Knowledge Management (CIKM)
2017
- International Joint Conferences on Artificial Intelligence (IJCAI)
2011, 2013, 2015, 2016
- International Conference on Big Data and Smart Computing (BigComp)
2014, 2015, 2016
- International Joint Conferences on Neural Networks (IJCNN) 2016
- ASE International Conference on Social Informatics 2015
- International Workshop on Machine Learning, Optimization and Big Data (MOD)
2015
- International Conference on Neural Information Processing (ICONIP)
2006, 2011, 2013, 2014
- Asian Conference on Machine Learning (ACML) 2011, 2012, 2013
- International Computer Symposium (ICS) 2012
- Annual Data Mining and Knowledge Discovery Competition (KDDCup) 2011
- Symposium on Cloud and Services Computing (SC2) 2011
- International Symposium on Information Theory and its Applications (ISITA) 2010
- Conference on Empirical Methods in Natural Language Processing (EMNLP) 2009
- IEEE World Congress on Computational Intelligence (WCCI) 2008
- International Conference on Intelligent Sensors, Sensor Network and Information Processing (ISSNIP) 2005

Editor

- Action Editor, Transactions on Machine Learning Research (TMLR) 2022–present
- Guest Editor, Towards More Reliable and Sustainable Machine Learning Services, Frontiers in Big Data 2022–present
- Associate Editor, IEEE Computational Intelligence Magazine (CIM) 2020–2022
- Associate Editor, Journal of Information Science and Engineering (JISE) 2013–2015

Proposal Reviewer

- Workshops of International Conference on Machine Learning (ICML) 2023
- Research Projects of Ministry of Science and Technology of Taiwan (MOST)
 - Meta Reviewer 2019, 2020, 2021, 2022
 - Reviewer 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022
- Academia Collaboration Projects of Industrial Technology Research Institute of Taiwan (ITRI)
2017
- Research Projects of National Science Council of Taiwan (NSC)
2010, 2011, 2013, 2014

- Undergraduate Research Projects of National Science Council of Taiwan (NSC) 2013, 2014

Conference Organizer

- Workshop Chair, Conference on Neural Information Processing Systems (NeurIPS) 2022
- EXPO Co-Chair, International Conference on Machine Learning (ICML) 2021
- Program Co-Chair, Conference on Neural Information Processing Systems (NeurIPS) 2020
- Publicity Co-Chair, Asian Conference on Machine Learning (ACML) 2017
- Program Co-Chair, Conference on Technologies and Applications of Artificial Intelligence (TAAI) 2014
- Tutorial Co-Chair, Asian Conference on Machine Learning (ACML) 2014
- Registration Co-Chair, Pacific-Asia Conference on Knowledge Discovery and Data Mining (PAKDD) 2014
- Registration Chair, Conference on Technologies and Applications of Artificial Intelligence (TAAI) 2013
- Local Arrangement Co-Chair, Symposium on Cloud and Services Computing (SC2) 2011

Workshop/Meetup Organizer

- NeurIPS Meetup Taipei Site 2021
(with Frank Yu-Chiang Wang and Hung-Yi Lee)
- Machine Learning Research in Taiwan: Challenges and Directions @ TAAI 2010
(with Jane Hsu)

Services for Asian Conference on Machine Learning

- Steering Committee Co-Chair 2022–present
- Steering Committee Member 2021–present
- Advisory Committee, Online Asian Machine Learning School (OAMLS) 2021, 2022

Services for Taiwanese Association for Artificial Intelligence

- Board Member (11th, 12th, 13th, 14th, 15th) 2015–present
- Thesis Award Reviewer 2009, 2012, 2013, 2015, 2021, 2022
- Secretary General (10th) 2013–2014

Services for Alumni Association of NTU Computer Science and Information Engineering

- Board Member (1st, 2nd, 3rd) 2018–present

Services Related to Programming Contests

- Host Scientific Committee Member, International Olympiad in Informatics (IOI) 2014

- Program Committee Member,
National Contest of High School Students on Informatics 2013
- Invited Lecturer,
Training Camp of International Olympiad in Informatics (TOI) 2009, 2010, 2011, 2012
- Program Committee Member,
National Contest for Private Universities (NCPU) 2012
- Program Committee Member,
Cross-strait Programming Contest at NTHU 2009, 2012
- Program Committee Member,
Project of Collegiate Programming: Practice, Training, Contest (PTC2),
Ministry of Education of Taiwan (MOE) 2011-2012
- Program Committee Member,
Asian Regional Site of International Collegiate Programming Contest (ICPC),
National Sun Yat-Sen University 2010
National Chiao-Tung University 2009
National Taiwan University 2008
- Problem Designer and Reviewer,
Project of Collegiate Programming: Practice, Training, Contest (PTC),
Ministry of Education of Taiwan (MOE) 2009-2010

Other Services

- Course Advisory Committee, Taiwan Artificial Intelligence Academy 2021–2022
- Organizing Committee Member, National Computer Science Forum 2012
- White Paper Co-author, AI sub-area, National Science Council of Taiwan 2010

MEMBERSHIPS

The Institute of Electrical and Electronics Engineers (IEEE) and Computational Intelligence Society

Association for Computing Machinery (ACM) and Special Interest Group on Knowledge Discovery in Data (SIGKDD)

Taiwanese Association for Artificial Intelligence (TAAI)

Alumni Association of NTU Computer Science and Information Engineering