Tingyang Wei

TINGYANG001@e.ntu.edu.sg

Education

South China University of Technology   Sep. 2015 – Jun. 2019
BEng. Student in Computer Science and Technology, Guangzhou, China

South China University of Technology   Sep. 2019 – Jun. 2022
MEng. Student in Computer Science and Technology, Guangzhou, China

Nanyang Technological University   Jul. 2022 – Present
Ph.D. in Computer Science and Engineering, Singapore, Singapore

Research Interests

Transfer Learning, Reinforcement Learning, Incremental Learning, Symbolic Regression, and Combinatorial Optimization

Experience

Research Assistant   Sep. 2016 – Jun. 2018
*Machine Learning research supervised by **Prof. Wing.W.Y.Ng***   *South China University of Technology*
- Computational learning theory
- Object tracking

Research Assistant   Jul. 2018 – Aug. 2021
*Evolutionary Computation research supervised by **Prof. Jinghui Zhong***   *South China University of Technology*
- Symbolic regression
- Multi-task optimization

Research Assistant   Jul. 2022 – Present
*Artificial Intelligence research supervised by **Prof. Ong Yew Soon** and **Dr. Tan Puay Siew** and **Prof. Abhishek Gupta***   *A*STAR SIMTech (CFAR)*
- Generative models
- Hyper-parameter tuning
- Multi-objective optimization
- Bayesian optimization

Publications

Multi-Objective Parametric Multi-Task Optimization via Generative Modeling
Tingyang Wei, Jiao Liu, Abhishek Gupta, Puay Siew Tan, Yew-Soon Ong
Proceedings of the AAAI Conference on Artificial Intelligence. 2026.

Music Minion Guided Evolutionary Multitasking: A Case Study in Piano Fingering Estimation
Ananda Phan Iman, **Tingyang Wei**, Chang Wook Ahn, Yew-Soon Ong
IEEE Transactions on Cybernetics (2026)

Convergence of Expensive Multi-objective Optimizers: From ParEGO to ExTrEMO
Haofeng Wu, **Tingyang Wei**, Jiao Liu, Meng Xu, Yew-Soon Ong, Yaochu Jin
2025 IEEE Congress on Evolutionary Computation (CEC). IEEE, 2025.

(θ_l, θ_u)-Parametric Multi-Task Optimization: Joint Search in Solution and Infinite Task Spaces
Tingyang Wei, Jiao Liu, Abhishek Gupta, Puay Siew Tan, Yew-Soon Ong
IEEE Transactions on Evolutionary Computation (2025)

Bayesian Forward-Inverse Transfer for Multiobjective Optimization
Tingyang Wei, Jiao Liu, Abhishek Gupta, Puay Siew Tan, Yew-Soon Ong
International Conference on Parallel Problem Solving from Nature. Cham: Springer International Publishing, 2024

A Review on Evolutionary Multi-Task Optimization: Trends and Challenges
Tingyang Wei, Shibin Wang, Jinghui Zhong, Dong Liu, Jun Zhang
IEEE Transactions on Evolutionary Computation (2022)

Towards Generalized Resource Allocation on Evolutionary Multitasking for Multi-Objective Optimization
Tingyang Wei, Jinghui Zhong
IEEE Computational Intelligence Magazine (2021)

Multiclass Classification on High Dimension and Low Sample Size Data using Genetic Programming

Tingyang Wei, Wei-Li Liu, Jinghui Zhong, Yue-Jiao Gong
IEEE Transactions on Emerging Topics in Computing (2020)

A preliminary study of knowledge transfer in multi-classification using gene expression programming
Tingyang Wei, Jinghui Zhong
Frontiers in neuroscience 13 (2020): 1396

An Energy-Efficient Partition-Based Framework With Continuous Ant Colony Optimization for Target Tracking in Mobile Sensor Networks
Tingyang Wei, Jinghui Zhong, Jun Zhang
IEEE Transactions on Emerging Topics in Computational Intelligence (2019)

Object tracking under occlusion using lgem-trained ssvm
Lin, Anqi, **Tingyang Wei**, Wing WY Ng
2018 International Conference on Wavelet Analysis and Pattern Recognition (ICWAPR). IEEE, 2018

Honors and Awards

Singapore International Graduate Award	2022
Agency for Science, Technology and Research (A*STAR)	
National Scholarship	2021
Ministry of Education of P.R. China	
Winner of Multi-Objective Optimization Track in CEC Competition on Evolutionary Multi-task Optimization	2021
IEEE Congress on Evolutionary Computation	
National Scholarship	2020
Ministry of Education of P.R. China	
Winner of Multi-Objective Optimization Track in GECCO Competition on Evolutionary Multi-task Optimization	2020
ACM Genetic and Evolutionary Computation Conference	
Winner of Multi-Objective Optimization Track in WCCI Competition on Evolutionary Multi-task Optimization	2020
IEEE World Congress on Computational Intelligence	
Merit Student Scholarship	2018
South China University of Technology	

Language and Skills

Programming Languages: C/C++, Python, MATLAB, LaTeX, PyTorch
Languages: Mandarin (native), English (fluent)