TIANTONG WANG

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Nanyang Technological University, Singapore

EDUCATION

Nanyang Technological University Singapore
PhD, College of Computing and Data Science *Aug. 2023 – Present*
Supervisors: Wei Yang Bryan Lim and Chunyan Miao.
Research topics: Collaborative AI, model merging.
Research affiliations: Joint NTU–WeBank Research Centre on Fintech (Aug 2023–Aug 2024); Alibaba–NTU Global e-Sustainability CorpLab (ANGEL) (Aug 2024–Present).

The Chinese University of Hong Kong, Shenzhen (CUHKSZ) Shenzhen, China
BSc in Mathematics and Applied Mathematics *Sept. 2019 – June 2023*
Stream: Applied Mathematics.
GPA: 3.794/4.000; top **6%** in the school and top **9%** in the major.
Honor: Academic Performance Scholarship; ranked **1st among 551 students** in the School of Science and Engineering in academic year 2019–2020.
Coursework: Mathematical Introduction to Deep Learning (Prof. Arnulf Jentzen); Optimization I & II; Optimization Models and Methods in Deep Learning (Prof. Ruoyu Sun); Mathematical Modeling; Ordinary and Partial Differential Equations; Numerical Analysis; Calculus I & II; Linear Algebra; Advanced Linear Algebra; Real Analysis; Abstract Algebra; Graph Theory; Applied Category Theory.

University of Cambridge, Pembroke College Cambridge, UK
Online Summer Research Program in Physics *July 2022*
Supervisor: Dr. Joao Rodrigues.
Honor: Full scholarship co-funded by Cambridge and CUHKSZ.

SELECTED PUBLICATIONS

[1] **Tiantong Wang**, Yiyang Duan, Haoyu Chen, Tiantong Wu, and Wei Yang Bryan Lim.
M-Loss: Quantifying Model Merging Compatibility with Limited Unlabeled Data.
Proceedings of the AAAI Conference on Artificial Intelligence (**AAAI 2026**), 40(31): 26471–26479.

[2] Zhiren Gong, Yikun Hou, Fan Wu, Che Wang, Fuyao Zhang, Tiantong Wu, Yurong Hao, Jiaming Zhang, Yiyang Duan, **Tiantong Wang**, Fei Huang, Chau Yuen, and Wei Yang Bryan Lim.
SubspacePath Pruner: Inference-time Pruning via Probe-based Representation–Parameter Coupling.
International Conference on Machine Learning (**ICML 2026**).

[3] Tianxiang Chen, Wenjie Hou, Feng Wang, **Tiantong Wang**, Zhiming Zheng, Shaoting Tang, and Wei Yang Bryan Lim.
Stability-Enhanced Federated Learning with Accelerated Gradient.
Advances in Neural Information Processing Systems (**NeurIPS 2026**).

[4] Che Wang, Ziqi Zhang, Yinggui Wang, **Tiantong Wang**, Yurong Hao, Jianbo Gao, Tao Wei, Yang Cao, Zhong Chen, and Wei Yang Bryan Lim.
AegisGuard: RL-Guided Adapter Tuning for TEE-Based Efficient & Secure On-Device Inference.
Advances in Neural Information Processing Systems (**NeurIPS 2025**), 38: 166384–166412.

[5] Guang-Bin Huang, M. Brandon Westover, Eng-King Tan, Haibo Wang, Dongshun Cui, Wei-Ying Ma, **Tiantong Wang**, Qi He, Haikun Wei, Ning Wang, Qiyuan Tian, Kwok-Yan Lam, Xin Yao, and Tien Yin Wong.
Artificial intelligence without restriction surpassing human intelligence with probability one: Theoretical insight into secrets of the brain with AI twins of the brain.
Neurocomputing, 619: 129053, 2025.

RESEARCH ACTIVITIES

Weekly Seminars on Advanced Data Science Topics *Sept. 2021 – Dec. 2021*

Supervisor: Prof. Zhi-Quan Tom Luo (Academician of the Chinese Academy of Engineering).

- Participated in weekly discussions on advanced data science topics with Prof. Luo in a 6-student group.
- Hosted a discussion session on machine learning.

Online Summer Research Program, Pembroke College, Cambridge *July 2022*

Research topic: Analysis of the Motion of a Two-Dimensional Particle-Spring System with Friction Dependent on the Velocity.

Supervisor: Dr. Joao Rodrigues.

- Derived formulas for the motion of a two-dimensional particle-spring system with a centripetal force proportional to distance and different forms of velocity-dependent viscous friction.
- Simulated particle trajectories under different friction models using MATLAB.

ACADEMIC ACTIVITIES

Undergraduate Student Teaching Fellow Program *Sept. 2020 – June 2023*

The Chinese University of Hong Kong, Shenzhen

Undergraduate Student Teaching Fellow

- Served as a teaching fellow for PHY1001: Mechanics; STA2001: Probability and Statistics; MAT3004: Abstract Algebra; and MAT3040: Advanced Linear Algebra.
- Designed and delivered weekly tutorials, held office hours, graded assignments, and supported communication between professors and students.

Online Summer Camp: Federated Learning *June 2020 – Aug. 2020*

School of Science and Engineering, CUHKSZ

Supervisor: Prof. Jianwei Huang.

- Studied federated learning algorithms and paradigms, and developed a project simulating the federated learning process with team from Webank.

EXTRACURRICULAR ACTIVITIES

Shimmer Public Welfare *Aug. 2019 – May 2020*

Volunteer Manager, *Fun Classes at 4:30pm*

Program honors: People's 100 Favorite Programs in Shenzhen; Outstanding Programs in the Guangdong–Hong Kong–Macao Greater Bay Area Benefiting Children.

Student Representative, CUHKSZ *Sept. 2019 – July 2021*

Student Representative for IT Security (2019–2020);
Student Representative for Shaw College student welfare (2020–2021).

Physics Association, CUHKSZ *Sept. 2020 – July 2021*

Vice-President and Co-Founder.

Table Tennis Team, Shaw College *Sept. 2022 – June 2023*

Team Manager.

Honor: First place in the university inter-college table tennis competition, 2023.