



Dr. Tian Liwei

Department of Cross-Border E-Commerce | Professor

Biography

Dr Tian Liwei is a Professor, master's supervisor, Senior Network Planning Designer and Senior Information System Project Manager. Dr Tian is a Distinguished Member of the China Computer Federation ("CCF") and Vice Chair of CCF Dongguan, a member of the Professional Committee on Intelligent Simulation Optimisation and Scheduling of the China Simulation Federation, and a member of the Professional Committee of Discrete and Intelligent Computing of the Chinese Association for Artificial Intelligence. Dr Tian currently serves as Director of the Guangdong Engineering Technology Research Centre for Edge Intelligence and Industrial Internet, Director of the Guangdong Provincial Key Laboratory of Kunpeng + Intelligent Manufacturing for Higher Education Institutions, Director of the Guangdong Provincial Higher Education Engineering Technology Research Centre for IoT R&D and Application, Director of the Dongguan Key Laboratory of Kunpeng Computing, and Director of the Dongguan AIOT Edge Computing Engineering Technology Research Centre. Dr Tian is also the project lead for the Digital Security Industry Talent Base of the Ministry of Industry and Information Technology and the Guangdong Provincial Demonstration Modern Industry College (Huawei ICT Academy). Dr Tian has served as the principal investigator for three Guangdong provincial projects in key fields and key

disciplines, three collaborative education projects of the Ministry of Education, and two research projects in Dongguan. Dr Tian has received the First Prize of the Guangdong Provincial Scientific and Technological Progress Award in 2025, the China High-Tech Industry Innovation Award of the Ministry of Science and Technology (ranking first), and a Second Prize at the 9th Guangdong Provincial Education and Teaching Achievement Award in 2025 (ranking first). Dr Tian has published more than 30 academic papers, served as editor-in-chief of one textbook and deputy editor-in-chief of three textbooks, and obtained two software copyrights. In recent years, Dr Tian has supervised four master's students and taught four undergraduate courses.

Employment History

- Professor and Master's Supervisor, Guangdong University of Science and Technology
- Director, Guangdong Engineering Technology Research Centre for Edge Intelligence and Industrial Internet
- Director, Guangdong Provincial Key Laboratory of Kunpeng + Intelligent Manufacturing for Higher Education Institutions
- Director, Guangdong Provincial Higher Education Engineering Technology Research Centre for IoT R&D and Application
- Director, Dongguan Key Laboratory of Kunpeng Computing
- Director, Dongguan AIOT Edge Computing Engineering Technology Research Centre
- Professional qualifications including Senior Network Planning Designer and Senior Information System Project Manager

Education

- Doctoral Degree in Computer Technology and Application, Macau University of Science and Technology

Social Service

- Distinguished Member of the China Computer Federation (“CCF”) and Vice Chair of CCF Dongguan
- Member of the Professional Committee on Intelligent Simulation Optimisation and Scheduling of the China Simulation Federation
- Member of the Professional Committee of Discrete and Intelligent Computing of the Chinese Association for Artificial Intelligence
- Project Lead, Digital Security Industry Talent Base of the Ministry of Industry and Information Technology
- Project Lead, Guangdong Provincial Demonstration Modern Industry College (Huawei ICT Academy)

Research Achievements

Representative Achievements in the Past Five Years

Type of achievement	Title of achievement	Details, including award category and level, journal, volume/issue and page numbers, publisher and total print run, patent type and patent number, approval status, etc.	Year	Authorship status
---------------------	----------------------	--	------	-------------------

Type of achievement	Title of achievement	Details, including award category and level, journal, volume/issue and page numbers, publisher and total print run, patent type and patent number, approval status, etc.	Year	Authorship status
Thesis	Forecast of LSTM-XGBoost in Stock Price Based on Bayesian Optimisation	Intelligent Automation and Soft Computing, 2021, 29(3):855-868	2021	First author
Thesis	Stock price prediction based on LSTM and LightGBM hybrid model	The Journal of Supercomputing, 2022, 78(9): 11768-11793	2022	First author
Thesis	Research Summary of Blockchain Fragmentation Propagation Mechanism Based on Merkle Tree	Journal of Physics: Conference Series, 2021, 1914(1): 012010	2021	First author
Thesis	A relaxation-type accelerating iteration method for large sparse	Electronic Research Archive, 33(12),	2025	First author

Type of achievement	Title of achievement	Details, including award category and level, journal, volume/issue and page numbers, publisher and total print run, patent type and patent number, approval status, etc.	Year	Authorship status
	horizontal nonlinear complementarity problems	7442-7462		
Thesis	Interference- and Demand-Aware Full-Duplex MAC for Next-Generation IoT: A Dual-Phase Contention Framework with Dynamic Priority Scheduling	Electronics, 14(19), 3901	2025	First author
Thesis	Conditional information entropy-based feature selection for partially labelled heterogeneous data via matrix operation and prediction label	The Journal of Supercomputing 81.12 (2025): 1225	2025	Corresponding author

Type of achievement	Title of achievement	Details, including award category and level, journal, volume/issue and page numbers, publisher and total print run, patent type and patent number, approval status, etc.	Year	Authorship status
	using k-nearest neighbour			
Thesis	Defect data enhancement and anomaly detection methods for smart solar photovoltaic maintenance	Sustainable Energy Technologies and Assessments, 83, 104614	2025	Corresponding author
Textbook	Computer Network Fundamentals	Guangdong Higher Education Press; printed for the seventh time, with a cumulative print run of approximately 10,000 copies; awarded the title of “Outstanding Textbook of Guangdong Province in 2025”	2023	Editor-in-chief

Representative Industry-oriented Research Projects as Principal Investigator in the Past Five Years

Project category and source	Project title	Project period/Approval date	Funding received (Unit: RMB10,000)
Engineering Technology Research Centre/Department of Science and Technology of Guangdong Province	Guangdong Engineering Technology Research Centre for Edge Intelligence and Industrial Internet	Approved in January 2026	400
Key Laboratory/Department of Education of Guangdong Province	Guangdong Provincial Key Laboratory of Kunpeng + Intelligent Manufacturing for Higher Education Institutions	Approved in September 2023	200
Research Capacity Enhancement Project for Key Disciplines/Department of Education of Guangdong Province	Research on Key Technologies for Blockchain-based Collaborative Manufacturing in the	Dec 2022 – Nov 2025	100

Project category and source	Project title	Project period/Approval date	Funding received (Unit: RMB10,000)
	Industrial Internet		
Special Project in Key Fields (Next-Generation Information Technology)/Department of Education of Guangdong Province	Research on Cloud Storage Mechanisms Based on Blockchain Technology	Sep 2021 – Aug 2024	6
Industry-commissioned Research Project/Dongguan Yunnian Information Technology Co., Ltd.	Key Technologies for Data Centre Network Load Balancing	Dec 2022 – Nov 2023	106
Industry-commissioned Research Project/Shenzhen Xunfang Technologies Co., Ltd.	Development of a Huawei Cloud-based Digital Talent Course Platform	Nov 2023 – May 2025	60

Courses Taught in the Past Five Years

Year	Course title	Teaching hours	Target audience
Feb – Jun 2021	Computer Networks	56	Undergraduate
Sep – Dec 2021	Comprehensive Experiment in Computer Networks	48	Undergraduate
Feb – Jun 2022	Computer Networks	32	Undergraduate
Sep – Dec 2022	Comprehensive Experiment in Network Interconnection Technology	40	Undergraduate
Sep – Dec 2023	Computer Networks	56	Undergraduate