

Tiexin Qin

PhD Candidate at CityU

My research interests include machine learning for complex dynamical systems, neural differential equations, transfer learning, and their various applications.

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Education

City University of Hong Kong , Doctor of Philosophy Department of Electrical Engineering Supervisor: Haoliang Li	2021 - 2025
Nanjing University , Master of Computer Technology Department of Computer Science and Technology Supervisor: Yinghuan Shi	2018 - 2021
China University of Mining and Technology , Bachelor of Engineering Department of Computer Science and Technology <i>Graduated with Outstanding Honor</i>	2014 - 2018

Experience

University of Oxford, Mathematical Institute , Visiting scholar Characterization of molecular dynamics, supervised by Terry Lyons	Jan 2024 - Apr 2024
Meituan, AI lab , Research Intern Video keyframe extraction for content review, supervised by Lin Ma	Jul 2020 - Nov 2020

Awards and Honors

Research Tuition Scholarship Student with outstanding academic performance in City University of Hong Kong	2024
Outstanding Undergraduate Awarded to Top 10% students in China University of Mining and Technology	2018
China National Scholarship The highest scholarship for undergraduate students studying in China	2016

Publications ([Google Scholar](#))

- Kecheng Chen, Xinyu Luo, **Tiexin Qin**, Jie Liu, Hui Liu, Victor Ho Fun Lee, Hong Yan, Haoliang Li. “[Test-time Adaptation for Foundation Medical Segmentation Model without Parametric Updates](#)”. *International Conference on Computer Vision, (ICCV 2025)*
- Tiexin Qin**, Hong Yan, Haoliang Li. “[Generalize to New Dynamical Systems via Frequency Domain Adaptation](#)”. *IEEE Transactions on Pattern Analysis and Machine Intelligence, (TPAMI 2025)*
- Jie Liu, **Tiexin Qin**, Hui Liu, Yilei Shi, Lichao Mou, Xiao Xiang Zhu, Shiqi Wang, Haoliang Li. “[Q-PART: Quasi-Periodic Adaptive Regression with Test-time Training for Pediatric Left Ventricular Ejection Fraction Regression](#)”. *The IEEE / CVF Computer Vision and Pattern Recognition Conference, (CVPR 2025)*

4. **Tiexin Qin**, Mengxu Zhu, Chunyang Li, Terry Lyons, Hong Yan, Haoliang Li. “[Deep Signature: Characterization of Large-Scale Molecular Dynamics](#)”. *International Conference on Learning Representations, (ICLR 2025)*
5. Kecheng Chen, Pingping Zhang, **Tiexin Qin**, Shiqi Wang, Hong Yan, Haoliang Li. “[Test-time adaptation for image compression with distribution regularization](#)”. *International Conference on Learning Representations, (ICLR 2025)*
6. Kecheng Chen, **Tiexin Qin**, Victor Ho-Fun Lee, Hong Yan, Haoliang Li. “[Learning Robust Shape Regularization for Generalizable Medical Image Segmentation](#)”. *IEEE Transactions on Medical Imaging (TMI 2024)*
7. Benjamin Walker, Andrew D McLeod, **Tiexin Qin**, Yichuan Cheng, Haoliang Li, Terry Lyons. “[Log Neural Controlled Differential Equations: The Lie Brackets Make a Difference](#)”. *International Conference on Machine Learning, (ICML 2024)*
8. **Tiexin Qin**, Shiqi Wang, Haoliang Li. “[Evolving Domain Generalization via Latent Structure-Aware Sequential Autoencoder](#)”. *IEEE Transactions on Pattern Analysis and Machine Intelligence, (TPAMI 2023)*
9. Wenbin Li, Chuanqi Dong, Pinzhuo Tian, **Tiexin Qin**, Xuesong Yang, Ziyi Wang, Jing Huo, Yinghuan Shi, Lei Wang, Yang Gao, Jiebo Luo. “[LibFewShot: A Comprehensive Library for Few-shot Learning](#)”. *IEEE Transactions on Pattern Analysis and Machine Intelligence, (TPAMI 2023)*
10. **Tiexin Qin**, Shiqi Wang, Haoliang Li. “[Generalizing to Evolving Domains with Latent Structure-Aware Sequential Autoencoder](#)”. *International Conference on Machine Learning, (ICML 2022)*
11. Ziteng Liu, Yinghuan Shi, Hongwei Chen, **Tiexin Qin**, Xuejie Zhou, Jun Huo, Hao Dong, Xiao Yang, Xiangdong Zhu, Xuening Chen, Li Zhang, Mingli Yang, Yang Gao, Jing Ma. “[Machine Learning on Properties of Multiscale Multisource Hydroxyapatite Nanoparticles Datasets with Different Morphologies and Sizes](#)”. *npj Computational Materials 2021*
12. **Tiexin Qin**, Ziyuan Wang, Kelei He, Yinghuan Shi, Yang Gao, Dinggang Shen. “[Automatic Data Augmentation via Deep Reinforcement Learning for Effective Kidney Tumor Segmentation](#)”. *IEEE International Conference on Acoustics, Speech and Signal Processing, (ICASSP 2020)*
13. **Tiexin Qin**, Benjamin Walker, Terry Lyons, Hong Yan, Haoliang Li. “[Learning Dynamic Graph Embeddings with Neural Controlled Differential Equations](#)”. *In submission to IEEE Transactions on Pattern Analysis and Machine Intelligence, (TPAMI, Major Revision)*
14. **Tiexin Qin**, Wenbin Li, Yinghuan Shi, Yang Gao. “[Diversity Helps: Unsupervised Few-shot Learning via Distribution Shift-based Data Augmentation](#)”. *arXiv:2004.05805*
15. Yinghuan Shi, **Tiexin Qin**, Yong Liu, Jiwen Lu, Yang Gao, Dinggang Shen. “[Automatic data augmentation by learning the deterministic policy](#)”. *arXiv:1910.08343*
16. **Tiexin Qin**. “[Learning to Evolve: Machine Learning for Complex Dynamic Systems](#)”. *Doctoral Thesis, 2025.*

Teaching

CityU EE5434, Machine Learning for Signal Processing Applications Teaching Assistant	2022, 2023
CityU EE5811, Topics in Computer Vision Teaching Assistant	2022
CityU EE3206, Java Programming & Application Teaching Assistant	2021,2024,2025

Academic Service

- **Conference Reviewer**

SIGKDD (2022), ICME (2022), ICASSP (2023, 2024), WACV (2023, 2024), MMSP (2022), WWW (2024), NeurIPS (2024, 2025), ICLR (2025), CVPR (2025), ICML (2025), ICCV (2025)

- **Journal Reviewer**

IEEE Transactions on Circuits and Systems for Video Technology (TCSVT)
Journal of Intelligent & Fuzzy Systems

Professional Skills

Programming language: Python, C++, Java, MATLAB, Latex.

Deep learning frameworks: Pytorch, Keras.