# JIXIANG YU

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# PERSONAL STATEMENT

Jixiang Yu obtained his B.Sc. degree in Computer Science and Technology at Dongbei University of Finance and Economics in 2022, under the supervision of Professor Ming Gao. He has been a Ph.D. candidate at the Department of Computer Science, City University of Hong Kong, under the supervision of Professor Ka-Chun Wong since 2022. His research interests mainly lie in artificial intelligence, bioinformatics, and medical informatics. He has published several papers in top-tier journals and conferences, such as Bioinformatics, AAAI, and Nucleic Acids Research. He has received multiple prestigious awards including the Outstanding Academic Performance Award (twice) from City University of Hong Kong, Research Tuition Scholarship from City University of Hong Kong, and Outstanding Graduate of Dalian, etc.

# **EDUCATION**

City University of Hong Kong (CityU)

09/2022 - 12/2025 (expected)

Doctor of Philosophy in Computer Science

Overall GPA: 3.92

Supervisor: Professor Ka-Chun Wong (Stanford's top 2% most highly cited scientists)

Research Interest: Artificial Intelligence, Machine Learning, Bioinformatics, Medical Informatics.

Dongbei University of Finance and Economics (DUFE)

09/2018 - 05/2022

Bachelor of Science in Computer Science and Technology

Overall GPA: 90.66/100

Supervisor: Professor Ming Gao

Thesis Title: Deep Reinforcement Learning-based Hierarchical Delivery Decision Optimization of O2O Community

Group Buying.

#### SELECTED PUBLICATIONS

†: Co-First Authors.

[JII 2022] <u>Jixiang Yu</u>, Ming Gao, Yuchan Li, Zehui Zhang, Wai Hung Ip, Kai Leung Yung. Workflow Performance Prediction based on Graph Structure Aware Deep Attention Neural Network. *Journal of Industrial Information Integration*, Feb., 2022. **Impact Factor:** 15.7

[BIOINFO 2023] <u>Jixiang Yu</u>, Nanjun Chen, Zetian Zheng, Ming Gao, Ning Liang, Ka-Chun Wong. Chromothripsis Detection with Multiple Myeloma Patients Based on Deep Graph Learning. *Bioinformatics*, Jul., 2023. (CCF-B)

[AAAI 2024] <u>Jixiang Yu</u>, Nanjun Chen, Ming Gao, Xiangtao Li and Ka-Chun Wong. Unsupervised Gene-Cell Collective Representation Learning with Optimal Transport. *The Thirty-Eighth AAAI Conference on Artificial Intelligence (AAAI-24)*, Dec., 2023. (CCF-A)

[JBHI 2024] <u>Jixiang Yu</u>, Nanjun Chen, Linlin Cao, Ming Gao, Daizong Liu, Fuzhou Wang, Qiuzhen Lin, Xiangtao Li, Ka-Chun Wong. Synergizing Anti-Cancer Drug Combinations with Dual-View Hypergraph Representation Fusion. *IEEE Journal of Biomedical and Health Informatics*. Dec., 2024. **Impact Factor:** 6.7

[NAR 2024] Nanjun Chen<sup>†</sup>, <u>Jixiang Yu</u><sup>†</sup>, Zhe Liu, Lingkuan Meng, Xiangtao Li, Ka-Chun Wong. Discovering DNA Shape Motifs with Multiple DNA Shape Features: Generalization, Methods, and Validation. *Nucleic Acids Research*, Mar., 2024. **Impact Factor:** 14.9

#### OTHER PUBLICATIONS

[BIB 2024] Nanjun Chen, <u>Jixiang Yu</u>, Zhe Liu, Fuzhou Wang, Xiangtao Li, Ka-Chun Wong. TP-LMMSG: A peptide prediction graph neural network incorporating flexible amino acid property representation. *Breifings in Bioinformatics*, Jun., 2024. (CCF-B)

[CIBM 2024] Weidun Xie, <u>Jixiang Yu</u>, Lei Huang, For Lek Shyuen, Zetian Zheng, Xingjian Chen, Yuchen Wang, Zhichao Liu, Chengbin Peng, Ka-Chun Wong. DeepSeq2Drug: An Expandable Ensemble End-to-end Anti-viral Drug Repurposing Benchmark Framework by Multi-modal Embeddings and Transfer Learning. *Computers in Biology and Medicine*, Apr., 2024. **Impact Factor: 7.7** 

[ICMSI 2023] Nanjun Chen, Hiu Man Wong, <u>Jixiang Yu</u>, Lingkuan Meng, Ka-Chun Wong. Taxation and Housing on Population Dynamics: Multi-Agent Simulations. 2023 10th International Conference on Soft Computing and Machine Intelligence (ISCMI), Nov, 2023.

[WISA 2021] Ming Gao, Yuchan Li, <u>Jixiang Yu</u>. Workload Prediction of Cloud Workflow based on Graph Neural Network. The 18th International Conference on Web Information Systems and Applications (WISA2021), Sep., 2021.

[ICDLT 2021] Ying Jin, Ming Gao, <u>Jixiang Yu</u>. A Transformer Based Sales Prediction of Smart Container in New Retail Era. 2021 5th International Conference on Deep Learning Technologies (ICDLT), Jul., 2021.

#### AWARDS & HONORS

Outstanding Academic Performance Award (Top 5%). Sep., 2024, at CityU.

Outstanding Academic Performance Award (Top 5%). Sep., 2023, at CityU.

Research Tuition Scholarship, \$42,000 HKD. Sep., 2023, at CityU.

Outstanding Graduate of Dalian (Top 3%). May., 2022, at DUFE.

Postgraduate Studentship of City University of Hong Kong (\$19,200 HKD per month). Sep., 2022 - Now Excellent Graduation Thesis. May., 2022, at DUFE.

Best Report in 5th ICDLT. Jun., 2021.

Second Prize in the Contemporary Undergraduate Mathematical Contest in Modeling (CUMCM). Nov., 2020.

First Prize in the CUMCM (Liaoning Division). Nov., 2020.

First-class Scholarships, 2019 - 2021, at DUFE.

# JOB TALKS

Graph Representation Learning in Precision Oncology at Different Scales: From Discovery to Treatment, School of Computer Science and Engineering, Tianjin University of Technology. 30 Nov., 2024.

# ACADEMIC SERVICES

Reviewer
Teaching

IEEE T-NNLS, ICME, Computational Intelligence, Frontiers in Genetics, BioData Mining.

As Tutor at City University of Hong Kong:

CS5488 Big Data Algorithms and Techniques (Graduate Course), 2022 - Now,

CS4480 Data Intensive Computing, 2022 - Now,

CS4465 Computational Biology and Bioinformatics, 2022 - Now.

Last Update: Dec., 2024.