

# Xiao HUANG

---

CONTACT PQ837, Mong Man Wai Building (+852) 2766 7299  
INFORMATION Hung Hom, Kowloon, Hong Kong xiaohuang@comp.polyu.edu.hk  
<https://www4.comp.polyu.edu.hk/~xiaohuang/>

---

## APPOINTMENTS:

- Assistant Professor, The Hong Kong Polytechnic University July 2020 - present  
Department of Computing
- Research intern at Microsoft Research Lab - Redmond May 2019 - Aug 2019
- Research intern at Baidu USA May 2018 - Aug 2018

---

## ACADEMIC QUALIFICATIONS:

- Texas A&M University Ph.D., Computer Engineering Aug 2015 - May 2020
- Illinois Institute of Technology M.S. with Thesis, EE Aug 2013 - July 2015
- Shanghai Jiao Tong University B.S. in Engineering Sept 2008 - June 2012

---

## RESEARCH INTERESTS:

Large language models, retrieval-augmented generation, graph neural networks, knowledge graphs, recommender systems, text-to-SQL, attributed graphs, anomaly detection

---

## PUBLICATION RECORDS:

- SUMMARY** 89 publications (62 conference papers, 21 journal papers, 6 arXiv preprint), 4000+ citations, h-index 30, i10-index 49
- REWARDS** [C23]: Best Paper Award Honorable Mention at SIGIR 2023  
[C30]: International Conference On Web-Based Learning (ICWL) 2022 Best Paper  
[J20]: 2019 INFORMS QSR Best Student Paper Finalist  
[C53]: 2019 INFORMS QSR Best Refereed Paper Finalist  
[C59]: Doctoral Forum Best Poster Runner-Up Award in SDM 2017

---

## REFEREED CONFERENCE PUBLICATIONS

- [C1] KnowGPT: Knowledge Graph based Prompting for Large Language Models, Qinggang Zhang, Junnan Dong, Hao Chen, Daochen Zha, Zailiang Yu, **Xiao Huang**, *NeurIPS*, 2024.
- [C2] Cost-efficient Knowledge-based Question Answering with Large Language Models, Junnan Dong, Qinggang Zhang, Chuang Zhou, Hao Chen, Daochen Zha, **Xiao Huang**, *NeurIPS*, 2024.
- [C3] Entity Alignment with Noisy Annotations from Large Language Models, Shengyuan Chen, Qinggang Zhang, Junnan Dong, Wen Hua, Qing Li, **Xiao Huang**, *NeurIPS*, 2024.
- [C4] Modality-Aware Integration with Large Language Models for Knowledge-based Visual Question Answering, Junnan Dong, Qinggang Zhang, Huachi Zhou, Daochen Zha, Pai Zheng, **Xiao Huang**, *ACL*, 2024.
- [C5] Enhancing Explainable Rating Prediction through Annotated Macro Concept, Huachi Zhou, Shuang Zhou, Hao Chen, Ninghao Liu, Fan Yang, **Xiao Huang**, *ACL*, 2024
- [C6] Knowledge-to-SQL: Enhancing SQL Generation with Data Expert LLM, Zijin Hong, Zheng Yuan, Hao Chen, Qinggang Zhang, Feiran Huang, **Xiao Huang**, *ACL (Findings)*, 2024.

- [C7] QUEST: Efficient Extreme Multi-Label Text Classification with Large Language Models on Commodity Hardware, Chuang Zhou, Junnan Dong, **Xiao Huang**, Zirui Liu, Kaixiong Zhou, Zhaozhuo Xu, *EMNLP (Findings)*, 2024.
- [C8] Logical Reasoning with Relation Network for Inductive Knowledge Graph Completion, Qinggang Zhang, Keyu Duan, Junnan Dong, Pai Zheng, **Xiao Huang**, *KDD*, 2024
- [C9] Multi-Behavior Collaborative Filtering with Partial Order Graph Convolutional Networks, Yijie Zhang, Yuanchen Bei, Hao Chen, Qijie Shen, Zheng Yuan, Huan Gong, Senzhang Wang, Feiran Huang, **Xiao Huang**, *KDD*, 2024.
- [C10] Feedback Reciprocal Graph Collaborative Filtering, Weijun Chen, Yuanchen Bei, Qijie Shen, Hao Chen, **Xiao Huang**, Feiran Huang, *CIKM*, 2024.
- [C11] Configurable Mirror Descent: Towards a Unification of Decision Making, Pengdeng Li, Shuxin Li, Chang Yang, Xinrun Wang, Shuyue Hu, **Xiao Huang**, Hau Chan, Bo An, *ICML*, 2024
- [C12] Denoising-Aware Contrastive Learning for Noisy Time Series, Shuang Zhou, Daochen Zha, Xiao Shen, **Xiao Huang**, Rui Zhang, Korris Chung, *IJCAI*, 2024
- [C13] Reinforcement Nash Equilibrium Solver, Xinrun Wang, Chang Yang, Shuxin Li, Pengdeng Li, **Xiao Huang**, Hau Chan, Bo An, *IJCAI*, 2024
- [C14] Self-adaptive PSRO: Towards an Automatic Population-based Game Solver, Pengdeng Li, Shuxin Li, Chang Yang, Xinrun Wang, **Xiao Huang**, Hau Chan, Bo An, *IJCAI*, 2024
- [C15] Macro Graph Neural Networks for Online Billion-Scale Recommender Systems, Hao Chen, Yuanchen Bei, Qijie Shen, Yue Xu, Sheng Zhou, Wenbing Huang, Feiran Huang, Senzhang Wang, **Xiao Huang**, *TheWebConf*, 2024.
- [C16] Could Small Language Models Serve as Recommenders? Towards Data-centric Cold-start Recommendation, Xuansheng Wu, Huachi Zhou, Yucheng Shi, Wenlin Yao, **Xiao Huang**, Ninghao Liu, *TheWebConf*, 2024.
- [C17] Differentiable Neuro-Symbolic Reasoning on Large-Scale Knowledge Graphs, Shengyuan Chen, Yunfeng Cai, Huang Fang, **Xiao Huang**, Mingming Sun, *NeurIPS*, 2023.
- [C18] Graph Neural Networks with Non-Recursive Message Passing, Qiaoyu Tan, Xin Zhang, Jiahe Du, **Xiao Huang**, *International Conference on Data Mining Workshops*, 2023.
- [C19] Gradual Study Advising with Course Knowledge Graphs, Junnan Dong, Wentao Li, Yaowei Wang, Qing Li, George Baci, Jiannong Cao, **Xiao Huang**, Richard Chen Li, Peter H. F. Ng, *ICWL*, 2023.
- [C20] Non-Recursive Cluster-Scale Graph Interacted Model for Click-Through Rate Prediction, Yuanchen Bei, Hao Chen, Shengyuan Chen, **Xiao Huang**, Sheng Zhou, Feiran Huang, *CIKM*, 2023.
- [C21] RSC: Accelerating Graph Neural Networks Training via Randomized Sparse Computation, Zirui Liu, Shengyuan Chen, Kaixiong Zhou, Daochen Zha, **Xiao Huang**, Xia Hu, *ICML*, 2023.
- [C22] Adaptive Popularity Debiasing Aggregator for Graph Collaborative Filtering, Huachi Zhou, Hao Chen, Junnan Dong, Daochen Zha, Chuang Zhou, **Xiao Huang**, *SIGIR*, 2023.
- [C23] Aligning Distillation For Cold-start Item Recommendation, Feiran Huang, Zefan Wang, **Xiao Huang**, Yufeng Qian, Zhetao Li, Hao Chen, *SIGIR*, 2023.

- [C24] Hierarchy-Aware Multi-Hop Question Answering over Knowledge Graphs, Junnan Dong, Qinggang Zhang, **Xiao Huang**, Keyu Duan, Qiaoyu Tan, Zhimeng Jiang, *TheWebConf*, 2023.
- [C25] Error Detection on Knowledge Graphs with Triple Embedding, Yezi Liu, Qinggang Zhang, Mengnan Du, **Xiao Huang**, Xia Hu, *EUSIPCO*, 2023.
- [C26] HTP: Exploiting Holistic Temporal Patterns for Sequential Recommendation, Rui Chen, Guotao Liang, Chenrui Ma, Qilong Han, Li Li, **Xiao Huang**, *IJCNN*, 2023.
- [C27] Interest Driven Graph Structure Learning for Session-Based Recommendation, Huachi Zhou, Shuang Zhou, Keyu Duan, **Xiao Huang**, Qiaoyu Tan, Zailiang Yu, *PAKDD*, 2023.
- [C28] Active Ensemble Learning for Knowledge Graph Error Detection, Junnan Dong, Qinggang Zhang, **Xiao Huang**, Qiaoyu Tan, Daochen Zha, Zihao Zhao, *WSDM*, 2023.
- [C29] S2GAE: Self-Supervised Graph Autoencoders Are Generalizable Learners with Graph Masking, Qiaoyu Tan, Ninghao Liu, **Xiao Huang**, Soo-Hyun Choi, Li Li, Rui Chen, Xia Hu, *WSDM*, 2023.
- [C30] Intelligent Instructional Design via Interactive Knowledge Graph Editing, Jerry Cheuk Kin Chan, Yaowei Wang, Qing Li, George Baciu, Jiannong Cao, **Xiao Huang**, Richard Chen Li, Peter H. F. Ng, *ICWL*, 2022.
- [C31] Constructing Low-Redundant and High-Accuracy Knowledge Graphs for Education, Wentao Li, Huachi Zhou, Junnan Dong, Qinggang Zhang, Qing Li, George Baciu, Jiannong Cao, **Xiao Huang**, *ICWL*, 2022.
- [C32] Towards a Metaverse of Knowledge: A Constructivist Proposition on Immersive Learning and Visual Literacy, Zackary P. T. Sin, Isaac Dan Zhao, Astin C. H. Wu, Richard Chen Li, Peter H. F. Ng, **Xiao Huang**, George Baciu, Jiannong Cao, Qing Li, *ICWL*, 2022.
- [C33] Contrastive Knowledge Graph Error Detection, Qinggang Zhang, Junnan Dong, Keyu Duan, **Xiao Huang**, Yezi Liu, Linchuan Xu, *CIKM*, 2022.
- [C34] Multi-Interest Refinement by Collaborative Attributes Modeling for Click-Through Rate Prediction, Huachi Zhou, Jiaqi Fan, **Xiao Huang**, Ka Ho Li, Zhenyu Tang, Dahai Yu, *CIKM*, 2022.
- [C35] QuanGCN: Noise-Adaptive Training for Robust Quantum Graph Convolutional Networks, Kaixiong Zhou, Zhenyu Zhang, Shengyuan Chen, Tianlong Chen, **Xiao Huang**, Zhangyang Wang, Xia Hu, *QTML*, 2022.
- [C36] KCUBE: A Knowledge Graph University Curriculum Framework for Student Advising and Career Planning, Qing Li, George Baciu, Jiannong Cao, **Xiao Huang**, Richard Chen Li, Peter HF Ng, Junnan Dong, Qinggang Zhang, Zackary Sin, Yaowei Wang, *International Conference on Blended Learning*, 2022.
- [C37] FAITH: Few-Shot Graph Classification with Hierarchical Task Graphs, Song Wang, Yushun Dong, **Xiao Huang**, Chen Chen, Jundong Li, *IJCAI*, 2022.
- [C38] Generative Adversarial Framework for Cold-Start Item Recommendation, Hao Chen, Zefan Wang, Feiran Huang, **Xiao Huang**, Yue Xu, Yishi Lin, Peng He, Zhoujun Li, *SIGIR*, 2022.
- [C39] Contrastive Attributed Network Anomaly Detection with Data Augmentation, Zhiming Xu, **Xiao Huang**, Yue Zhao, Yushun Dong, Jundong Li, *PAKDD*, 2022.
- [C40] Unseen Anomaly Detection on Networks via Multi-Hypersphere Learning, Shuang Zhou, **Xiao Huang**, Ninghao Liu, Qiaoyu Tan, Fu-Lai Chung, *SDM*, 2022.

- [C41] Dirichlet Energy Constrained Learning for Deep Graph Neural Networks, Kaixiong Zhou, **Xiao Huang**, Daochen Zha, Rui Chen, Li Li, Soo-Hyun Choi, Xia Hu, *NeurIPS*, 2021.
- [C42] REFORM: Error-Aware Few-Shot Knowledge Graph Completion, Song Wang, **Xiao Huang**, Chen Chen, Liang Wu, Jundong Li, *CIKM*, 2021.
- [C43] Subtractive Aggregation for Attributed Network Anomaly Detection, Shuang Zhou, Qiaoyu Tan, Zhiming Xu, **Xiao Huang**, Fu-Lai Chung, *CIKM*, 2021.
- [C44] Unsupervised Graph Alignment with Wasserstein Distance Discriminator, Ji Gao, **Xiao Huang**, Jundong Li, *KDD*, 2021.
- [C45] Temporal Augmented Graph Neural Networks for Session-Based Recommendations, Huachi Zhou, Qiaoyu Tan, **Xiao Huang**, Kaixiong Zhou, Xiaoling Wang, *SIGIR*, 2021.
- [C46] Dynamic Memory based Attention Network for Sequential Recommendation, Qiaoyu Tan, Jianwei Zhang, Ninghao Liu, **Xiao Huang**, Hongxia Yang, Jingren Zhou, Xia Hu, *AAAI*, 2021.
- [C47] Towards Deeper Graph Neural Networks with Differentiable Group Normalization, Kaixiong Zhou, **Xiao Huang**, Yuening Li, Daochen Zha, Rui Chen, Xia Hu, *NeurIPS*, 2020.
- [C48] Scalable Social Tie Strength Measuring, Yan Zhong, **Xiao Huang**, Jundong Li, Xia Hu, *ASONAM*, 2020.
- [C49] Multi-Channel Graph Neural Networks, Kaixiong Zhou, Qingquan Song, **Xiao Huang**, Daochen Zha, Na Zou, Xia Hu, *IJCAI*, pages 1352–1358, 2020.
- [C50] Graph Recurrent Networks with Attributed Random Walks, **Xiao Huang**, Qingquan Song, Yuening Li, Xia Hu, *KDD*, pages 732–740, 2019.
- [C51] Knowledge Graph Embedding Based Question Answering, **Xiao Huang**, Jingyuan Zhang, Dingcheng Li, Ping Li, *WSDM*, pages 105–113, 2019.
- [C52] Large-Scale Heterogeneous Feature Embedding, **Xiao Huang**, Qingquan Song, Fan Yang, Xia Hu, *AAAI*, volume 33, 2019.
- [C53] SpecAE: Spectral Autoencoder for Anomaly Detection in Attributed Networks, Yuening Li, **Xiao Huang**, Jundong Li, Mengnan Du, Na Zou, *CIKM*, 2019.
- [C54] Exploring Expert Cognition for Attributed Network Embedding, **Xiao Huang**, Qingquan Song, Jundong Li, Xia Hu, *WSDM*, pages 270–278, 2018.
- [C55] On Interpretation of Network Embedding via Taxonomy Induction, Ninghao Liu, **Xiao Huang**, Jundong Li, Xia Hu, *KDD*, pages 1812–1820, 2018.
- [C56] Link Prediction with Personalized Social Influence, Zepeng Huo, **Xiao Huang**, Xia Hu, *AAAI*, 2018.
- [C57] Multi-Label Adversarial Perturbations, Qingquan Song, Haifeng Jin, **Xiao Huang**, Xia Hu, *ICDM*, 2018.
- [C58] Label Informed Attributed Network Embedding, **Xiao Huang**, Jundong Li, Xia Hu, *WSDM*, pages 731–739, 2017.
- [C59] Accelerated Attributed Network Embedding, **Xiao Huang**, Jundong Li, Xia Hu, *SDM*, pages 633–641, 2017.
- [C60] Multi-Aspect Streaming Tensor Completion, Qingquan Song, **Xiao Huang**, Hancheng Ge, James Caverlee, Xia Hu, *KDD*, pages 435–443, 2017.
- [C61] Accelerated Local Anomaly Detection via Resolving Attributed Networks, Ninghao Liu, **Xiao Huang**, Xia Hu, *IJCAI*, pages 2337–2343, 2017.

[C62] Index Coding and Network Coding via Rank Minimization, **Xiao Huang**, Salim El Rouayheb, *IEEE Information Theory Workshop*, pages 14–18, 2015.

REFEREED JOURNAL PUBLICATIONS

- [J1] Graph Cross-Correlated Network for Recommendation, Hao Chen, Yuanchen Bei, Wenbing Huang, Shengyuan Chen, Feiran Huang, **Xiao Huang**, *IEEE Transactions on Knowledge and Data Engineering*, 2024.
- [J2] Traceable teleportation: Improving spatial learning in virtual locomotion, Ye Jia, Zackary P.T. Sin, Chen Li, Peter H.F. Ng, **Xiao Huang**, George Baciu, Jiannong Cao, Qing Li, *International Journal of Human-Computer Studies*, 2024.
- [J3] Open-World Electrocardiogram Classification via Domain Knowledge-Driven Contrastive Learning, Shuang Zhou, **Xiao Huang**, Ninghao Liu, Wen Zhang, Yuan-Ting Zhang, Fu-Lai Chung, *Neural Networks*, 2024.
- [J4] Knowledge-Graph-Driven Mind Mapping for Immersive Collaborative Learning: A Pilot Study in Edu-Metaverse, Ye Jia, Xiangzhi Eric Wang, Zackary P. T. Sin, Chen Li, Peter H. F. Ng, **Xiao Huang**, George Baciu, Jiannong Cao, Qing Li, *IEEE Transactions on Learning Technologies*, 2024.
- [J5] Collaborative Parking Vacancy Prediction for Cities With Partial Sensors Missing, Beiyu Song, Huachi Zhou, **Xiao Huang**, Wei Ma, *IEEE Transactions on Intelligent Transportation Systems*, 2024.
- [J6] Graph Contrastive Learning with Personalized Augmentation, Xin Zhang, Qiaoyu Tan, **Xiao Huang**, Bo Li, *IEEE Transactions on Knowledge and Data Engineering*, 2024.
- [J7] Learning Hierarchical Task Structures for Few-shot Graph Classification, Song Wang, Yushun Dong, **Xiao Huang**, Chen Chen, Jundong Li, *ACM Transactions on Knowledge Discovery from Data*, 2024.
- [J8] Integrating Entity Attributes for Error-Aware Knowledge Graph Embedding, Qinggang Zhang, Junnan Dong, Qiaoyu Tan, **Xiao Huang**, *IEEE Transactions on Knowledge and Data Engineering*, 2023.
- [J9] Beyond Prediction: On-street Parking Recommendation using Heterogeneous Graph-based List-wise Ranking, Hanyu Sun, **Xiao Huang**, Wei Ma, *IEEE Transactions on Intelligent Transportation Systems*, 2023.
- [J10] Histogram-Based Gradient Boosting Tree: A Federated Learning Approach for Collaborative Fault Diagnosis, Liqiao Xia, Zheng Pai, Jinjie Li, **Xiao Huang**, Robert Gao, *IEEE/ASME Transactions on Mechatronics*, 2023.
- [J11] Behavioural Design of Gamification Elements and Exploration of Player Types in Youth Basketball Training, Zeping Feng, Newman Lau, Mengxiao Zhu, Mengru Liu, Rehe Refati, **Xiao Huang**, Kun-pyo Lee, *Smart Learning Environments*, 2023.
- [J12] Towards an Edu-Metaverse of Knowledge: Immersive Exploration of University Courses, Zackary P. T. Sin, Ye Jia, Astin C. H. Wu, Isaac Dan Zhao, Richard Chen Li, Peter H. F. Ng, **Xiao Huang**, George Baciu, Jiannong Cao, Qing Li, *IEEE Transactions on Learning Technologies*, 2023.
- [J13] Collaborative Graph Neural Networks for Attributed Network Embedding, Qiaoyu Tan, Xin Zhang, **Xiao Huang**, Hao Chen, Jundong Li, Xia Hu, *IEEE Transactions on Knowledge and Data Engineering*, 2023.
- [J14] Improving Generalizability of Graph Anomaly Detection Models via Data Augmentation, Shuang Zhou, **Xiao Huang**, Ninghao Liu, Huachi Zhou, Fu-Lai Chung, Long-Kai Huang, *IEEE Transactions on Knowledge and Data Engineering*, 2023.

- [J15] College-Related Question Answering based on Knowledge Graph, Cheng Peng, Hao Jiang, Junnan Dong, **Xiao Huang**, *IEEE Data Engineering Bulletin*, pages 60–71, 2022.
- [J16] Residual-Hypergraph Convolution Network: A Model-Based and Data-Driven Integrated Approach for Fault Diagnosis in Complex Equipment, Liqiao Xia, Yongshi Liang, Pai Zheng, **Xiao Huang**, *IEEE Transactions on Instrumentation and Measurement*, 2022.
- [J17] Auto-GNN: Neural Architecture Search of Graph Neural Networks, Kaixiong Zhou, **Xiao Huang**, Qingquan Song, Rui Chen, Xia Hu, *Frontiers in Big Data*, 2022.
- [J18] Fair Benchmark for Unsupervised Node Representation Learning, Zhihao Guo, Shengyuan Chen, **Xiao Huang**, Zhiqiang Qian, Chunsing Yu, Yan Xu, Fang Ding, *Algorithms*, volume 15, issue 10, 2022.
- [J19] A Novel Hypergraph Convolution Network-based Approach for Predicting the Material Removal Rate in Chemical Mechanical Planarization, Liqiao Xia, Pai Zheng, **Xiao Huang**, Chao Liu, *Journal of Intelligent Manufacturing*, 2021.
- [J20] A General Embedding Framework for Heterogeneous Information Learning in Large-Scale Networks, **Xiao Huang**, Jundong Li, Na Zou, Xia Hu, *ACM Transactions on Knowledge Discovery from Data*, volume 12, issue 6, 2018.
- [J21] Empirical Bayes Transfer Learning for Uncertainty Characterization in Predicting Parkinson’s Disease Severity, Na Zou, **Xiao Huang**, *IJSE Transactions on Healthcare Systems Engineering*, volume 8, issue 3, 2018.

#### ARXIV PREPRINT

- [A1] CLR-Bench: Evaluating Large Language Models in College-level Reasoning, Junnan Dong, Zijin Hong, Yuanchen Bei, Feiran Huang, Xinrun Wang, Xiao Huang, arXiv preprint arXiv:2410.17558, 2024.
- [A2] Neuro-Symbolic Entity Alignment via Variational Inference, Shengyuan Chen, Qinggang Zhang, Junnan Dong, Wen Hua, Jiannong Cao, **Xiao Huang**, *arXiv preprint arXiv:2410.04153*, 2024.
- [A3] Next-Generation Database Interfaces: A Survey of LLM-based Text-to-SQL, Zijin Hong, Zheng Yuan, Qinggang Zhang, Hao Chen, Junnan Dong, Feiran Huang, **Xiao Huang**, *arXiv preprint arXiv:2406.08426*, 2024.
- [A4] Structure Guided Large Language Model for SQL Generation, Qinggang Zhang, Junnan Dong, Hao Chen, Wentao Li, Feiran Huang, **Xiao Huang**, *arXiv preprint arXiv:2402.13284*, 2024.
- [A5] In-Context Exploiter for Extensive-Form Games, Shuxin Li, Chang Yang, Youzhi Zhang, Pengdeng Li, Xinrun Wang, **Xiao Huang**, Hau Chan, Bo An, *arXiv preprint arXiv:2408.05575*, 2024.
- [A6] Molcpt: Molecule Continuous Prompt Tuning to Generalize Molecular Representation Learning, Cameron Diao, Kaixiong Zhou, Zirui Liu, **Xiao Huang**, Xia Hu, *arXiv preprint arXiv:2212.10614*, 2023.

#### PROFESSIONAL SERVICE:

- 
- Organization committee member: ICDE 2025 (PhD Symposium Chair)
  - PC member: NeurIPS 2021-2024, ICLR 2022-2024, IJCAI 2020-2024, AAAI 2021-2023, KDD 2019-2023, TheWebConf 2022-2023, ICML 2021-2023, CIKM 2019-2022, WSDM 2021-2023, SDM 2022, ICKG 2020-2021
  - Topical Advisory Panel and Guest editor: Algorithms - MDPI
  - Editorial Board member: Computers & Education: X Reality

- Reviewer: IEEE TKDE, ACM TKDD, ACM Computing Surveys, ACM TOIS, IEEE Transactions on Cybernetics, IEEE Transactions on Big Data, IEEE TCSS, ACM TIST, International Journal of Machine Learning and Cybernetics - Springer

#### RESEARCH PROJECTS:

---

- Cross-Correlated Graph Neural Networks with Applications in Large-Scale Recommender Systems, *Innovation and Technology Fund*, Mar 2025 - Mar 2027, HK\$1,516,999.4, PI
- Intelligent Virtual Assistant for Operation and Maintenance based on Large Language Models, *Donation from the Industry*, Jul 2024 - Jul 2025, HK\$330,000, PI
- DataChat: Chatting with Database based on Knowledge-Graph-Enhanced Large Language Models, *Departmental Entrepreneurship Fund*, Nov 2023 - Nov 2026, HK\$500,000, PI
- Error-Aware and Contrastive Knowledge Graph Learning, *Early Career Scheme (RGC)*, Jan 2023 - Dec 2025, HK\$908,800, PI
- Integrating Contrastive Error Detection and Accelerated Completion for Large-Scale Knowledge Graph Refinement, *Departmental General Research Fund*, Jul 2021 - Jul 2023, HK\$300,000, PI
- Human-Centric Attributed Network Learning, *Start-up Fund for New Recruits*, Aug 2020 - Aug 2023, HK\$1,000,000, PI
- Design and formulation of behavioural user profile of teenage sports player with AI model and analysis methods from basketball training, *SD/COMP Joint Research Scheme*, Sep 2022 - Aug 2024, HK\$500,000, co-PI
- Parking Garage Vacancy Prediction Services in Hong Kong: AI-enabled Solutions for Enhanced Reliability and Extensibility, *Smart Traffic Fund*, Mar 2025 - Aug 2026, HK\$2,897,745.06, Co-I
- Course Content Knowledge Graph Construction and Reasoning Powered by LLMs, *Departmental Research*, Sep 2024 - Aug 2027, HK\$1,614,620, Co-I
- Development of an Augmented Reality-Assisted Head-up Display (AR-HUD) mechanism for recommending driving strategy, *Smart Traffic Fund*, Jan 2023 - Dec 2024, HK\$1,315,127, Co-I
- Image-based Unsupervised 3D Scene Understanding and Editing, *NSFC General Program*, Jan 2023 - Dec 2026, CNY592,000, Co-I
- Cognition-aware 3D Content Design for User-centered Metaverses, *SD/COMP Joint Research Scheme*, Sep 2022 - Aug 2025, HK\$500,000, Co-I
- Development and Deployment of an AI-enabled Parking Vacancy Prediction Framework using Multi-source Data, *Smart Traffic Fund*, May 2022 - Jul 2023, HK\$985,034, Co-I

#### ADVISEES:

---

- Ph.D. Students
  - Qinggang ZHANG, Fall 2021 -
  - Junnan DONG, Summer 2022 -
  - Huachi ZHOU, Fall 2022 -
  - Chuang ZHOU, Fall 2022 -
  - Jiahe DU, Fall 2022 -
  - Chang YANG, Summer 2023 -
  - Yuxuan XIE, Summer 2023 -
  - Zheng YUAN, Fall 2023 -
  - Zhu WANG, Fall 2023 -
  - Yilin XIAO, Fall 2024 -
  - Yujing ZHANG, Fall 2024 -
  - Su DONG, Fall 2024 -
  - Zijin HONG, Spring 2025 -
  - Shengyuan CHEN, Fall 2019 - Fall 2024
  - Shuang ZHOU, Fall 2020 - Spring 2024  
co-advised with Dr. Fu-Lai Chung
  - Liqiao XIA, Fall 2020 - Spring 2024  
co-advised with Dr. Pai Zheng

- Postdoctoral Fellow
  - *Hao CHEN, March 2023 - Nov 2024*
- M.S. Students (with Thesis)
  - *Tongzhou ZHOU, graduated in 2023*
  - *Wanying WANG, graduated in 2023*
  - *Wanqi ZHUANG, graduated in 2023*
  - *Jiahuan WANG, graduated in 2023*
  - *Chongyuan SUN, graduated in 2023*
  - *Jingwen WU, graduated in 2023*
  - *Yanjing ZHOU, graduated in 2023*
  - *Yong SHEN, graduated in 2023*
  - *Wentao LI, graduated in 2023*
  - *Maiqi JIANG, graduated in 2023*
  - *Xin ZHANG, graduated in 2022*
  - *Tiange XIANG, graduated in 2022*
  - *Zihao ZHAO, graduated in 2021*
  - *Zhihao GUO, graduated in 2021*