

EDUCATION

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- Hong Kong University of Science and Technology** Hong Kong, China
PhD Candidate in Electronic and Computer Engineering
Supervisor: Prof. Xiaomeng LI and Prof. Hao Wang
September 2022 - Present
 - Australian National University** Canberra, Australia
Bachelor of Advanced Computing (Honours); GPA: 6.5/7.0
Specialisations: Intelligent Systems; Supervisor: Senior Prof. Amanda Barnard and Dr. Amanda Parker
July 2018 - June 2022

PUBLICATIONS

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- Xinyue Xu**, Yi Qin, Lu Mi, Hao Wang, and Xiaomeng Li, “Energy-based concept bottleneck models: Unifying prediction, concept intervention, and probabilistic interpretations,” *International Conference on Learning Representations (ICLR)*, 2024.
 - Chen Zhao, Kai Wang, Qianji Jiao, **Xinyue XU**, et al., “Machine learning models for evaluating biological reactivity within molecular fingerprints of dissolved organic matter over time,” *Geophysical Research Letters*, 2024.
 - Chen Zhao*, **Xinyue Xu***, et al., “Exploring the complexities of dissolved organic matter photochemistry from the molecular level by using machine learning approaches,” *Environmental Science & Technology (EST)*, 2023.
 - Xinyue Xu***, Yuhan Hsi*, Haonan Wang, and Xiaomeng Li, “Dynamic data augmentation via monte-carlo tree search for prostate mri segmentation,” in *International Conference on Neural Information Processing*. Springer, 2023, pp. 272–282.
 - Zhongren Chen*, **Xinyue Xu***, Shengyi Jiang, Hao Wang, and Lu Mi, “Subgraph frequency distribution estimation using graph neural networks,” in *ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD) Workshop on Deep Learning on Graphs*, 2022.
 - Xinyue Xu** and Xiaolu Zheng, “Hybrid model for network anomaly detection with gradient boosting decision trees and tabtransformer,” in *ICASSP 2021 - 2021 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)*, 2021, pp. 8538–8542.
 - Xinyue Xu**, Xiang Ding, Zhenyue Qin, and Yang Liu, “Classification Models for Medical Data with Interpretative Rules,” in *International Conference on Neural Information Processing*, 2021, pp. 227–239.

EXPERIENCE

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- Hong Kong University of Science and Technology** Hong Kong, China
Teaching Assistant; Instructors: Prof. Bertram Shi, Prof. Ross Murch
Feb 2023 – Dec 2023
 - Course: ELEC 1200 A System View of Communications: from Signals to Packets
 - ANU Computational Science Group** Canberra, Australia
Honours (Full-time); Supervisor: Dr. Amanda Parker, Advisor: Prof. Amanda Barnard
Jun 2021 - Jun 2022
 - Honours Project: Towards Faster Hyperparameter-Free Clustering using Enhanced Iterative Label Spreading
 - MIT CSAIL Computational Connectomics Group** Remote
Research Internship (Part-time); Supervisor: Dr. Lu Mi, Advisor: Prof. Hao Wang
Sep 2021 - May 2022
 - National University of Singapore** Remote
Research Assistant (Part-time); Supervisor: Dr. Gang Guo
Jan 2021 - Mar 2021
 - Shanghai Jiao Tong University - SCE International Summer School** Shanghai, China
Teaching Assistant; Instructors: Dr. Xiaojun Zhu, Prof. Xiangdong An
Dec 2019 – Jan 2020
 - Courses: Statistics of Stochastic Process & Algorithms and Analysis

HONORS AND AWARDS

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- Hong Kong PhD Fellowship, 2022 - 2026
 - HKUST RedBird PhD Award, 2022 - 2023

ADDITIONAL INFORMATION

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- Membership:** IEEE Member, Asia Pacific Neural Network Society Member, Australian Computer Society Member
 - Service:** ICONIP 2023 Program Committee Member
 - Skills:** Python, SQL, Java, Haksell, C++, ARMv7, Ada, HTML/CSS
 - Research Interests:** Interpretable ML, AI4Science, Medical Image Analysis