Xinyue XU

Email: xinyue.xu@connect.ust.hk

EDUCATION

Hong Kong University of Science and Technology Hong Kong, China
PhD Candidate in Electronic and Computer Engineering *September 2022 - Present*
Supervisor: *Prof. Xiaomeng LI; CGA: 3.75/4.3*

Australian National University Canberra, Australia
Bachelor of Advanced Computing (Honours); GPA: 6.48/7.0 *July 2018 - June 2022*
Specialisations: Intelligent Systems; Supervisor: *Senior Prof. Amanda Barnard and Dr. Amanda Parker*

PHD RESEARCH AT HKUST

[1] **Xinyue Xu**, Yi Qin, Lu Mi, Hao Wang, and Xiaomeng Li, "Energy-based concept bottleneck models,"
International Conference on Learning Representations (ICLR), 2024.

[2] Zhao Chen*, **Xinyue Xu***, Hongmei Chen, Fengwen Wang, Penghui Li, Chen He, Quan Shi, Yuanbi Yi, Xiaomeng Li, Siliang Li, et al., "Exploring the complexities of dissolved organic matter photochemistry from the molecular level by using machine learning approaches," *Environmental Science & Technology*.

[3] **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.

PUBLICATIONS BEFORE PHD ENROLLMENT

[4] **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.

[5] **Xinyue Xu**, Xiang Ding, Zhenyue Qin, and Yang Liu, "Classification Models for Medical Data with Interpretative Rules," in *Neural Information Processing*, Teddy Mantoro, Minho Lee, Media Anugerah Ayu, Kok Wai Wong, and Achmad Nizar Hidayanto, Eds. 2021, pp. 227–239, Springer International Publishing.

[6] 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 Workshop on Deep Learning on Graphs*, 2022.

EXPERIENCE

Hong Kong University of Science and Technology Hong Kong, China
Teaching Assistant (Full-time); 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 (Full-time); Instructors: Dr. Xiaojun Zhu, Prof. Xiangdong An *Dec 2019 – Jan 2020*
  ○ **Courses**: Statistics of Stochastic Process & Algorithms and Analysis

HONORS AND AWARDS

- Hong Kong PhD Fellowship - April, 2022
- HKUST RedBird PhD Award - April, 2022

ADDITIONAL INFORMATION

- **Membership**:   IEEE Member, Asia Pacific Neural Network Society Member, Australian Computer Society Member
- **Service**:   ICONIP 2023 Program Committee Member
- **Languages**:   Python, SQL, Java, Haksell, C++, ARMv7, Ada, HTML/CSS
- **Research Interest**: Interpretable AI, AutoML and Clustering Analysis