Yifei, ZHANG (**Last updated on May 2022**) **Useful links:**

CONTACT INFO : yifeiacc@gmail.com, yfzhang@cse.cuhk.edu.hk

RESEARCH My research generally focuses on developing machine learning algorithms applied to graph-structured data. I have worked on developing generalized graph neural networks that are scalable to web-scale datasets, with applications in recommender systems, NLP.

EDUCATION

The Chinese University of Hong Kong Aug. 2020 - July 2024 (Excepted)
Ph.D. candidate, Dept. of Comp. Sci. & Eng. HongKong, China
Advised by Prof. Irwin King (Chairman, IEEE fellow)

The Australian National University July 2016 - July 2018
MPhil. Student in Computer Science Canberra, Australia

ZhengZhou University Sep. 2012 - July 2016
B.Eng. Student in Electrical Engineering ZhengZhou, China

EXPERIENCE

Alibaba Group Hangzhou, China
Senior Applied Machine Leaning Engineer (full-time) May 2019 - Aug. 2020

JD.com July 2018-May 2019
Applied Machine Leaning Engineer (full-time) Beijing, China

Data61 Canberra, Australia
Research Intern Nov. 2016 - Mar. 2017

PREPRINTS & WORKSHOP

[1] **Zhang Y.**, Zhu, H., Song, Z., Koniusz, P. and King, I., 2022, Aug. SFA: Spectral Feature augmentation for Graph Contrastive Learning. Submitted to (**NeurIPS'22**).

[2] Chen, Y., **Zhang, Y.**, Zhang, Y., Guo, H., Li, J., Tang, R., He, X. and King, I., 2021. Towards Low-loss 1-bit Quantization of User-item Representations for Top-K Recommendation. arXiv preprint. arXiv:2112.01944. Submitted to (**ICDE'22**)

[3] **Zhang, Y.** and Zhu, H. Deep Neural Network for Asymmetrically Collaborative Machine Learning with Additively Homomorphic Encryption. In The 1st International Workshop on Federated Machine Learning for User Privacy and Data Confidentiality (**IJCAI'19**). Solutions have been included in *FATE*, an industry level open source library for federated learning. See *this* for detail

CONFERENCE PUBLICATIONS

[4] **Zhang Y.**, Zhu, H., Meng, Z., Koniusz, P. and King, I., 2022, Aug. COSTA: Covariance Preserved Feature Augmentation for Graph Contrastive Learning. In Sigkdd Conference on Knowledge Discovery and Data Mining.[14.9% acceptance, 254/1695] (**KDD'22**).

[5] Song, Z., **Zhang, Y.**, and King, I, 2022, Aug. Towards an Optimal Asymmetric Graph Structure for Robust Semi-supervised Node Classification. In Sigkdd Conference on Knowledge Discovery and Data Mining[14.9% acceptance, 254/1695] (**KDD'22**).

[6] **Zhang Y.**, Zhu, H., Meng, Z., Koniusz, P. and King, I., 2022, April. Graph-adpative Rectified Linear Unit for Graph Neural Networks. In Proceedings of The Web Conference 2022. [17.7% of acceptance, 232/1822] (**WWW'22**).

[7] Song, Z., Meng, Z., **Zhang, Y.**, & King, I. (2021, October). Semi-supervised Multi-label Learning for Graph-structured Data. In Proceedings of the 30th ACM International Conference on Information & Knowledge Management. [21.7% acceptance (271/1251)] (**CIKM'21**)

[8] **Zhang, Y.** and Zhu, H., (2020, May). Discrete Wasserstein Autoencoders for Document Retrieval. In 2020 IEEE International Conference on Acoustics, Speech and Signal Processing. (**ICASSP'20**)

[9] **Zhang, Y.** and Zhu, H., (2019, June). Doc2hash: Learning Discrete Latent variables for Documents Retrieval. In Proceedings of the 2019 Conference of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies. [26.3% acceptance (281/1067)](**NAACL'19**).

[10] Rizoiu, M. A., Graham, T., Zhang, R., **Zhang, Y.**, Ackland, R., Xie, L. (2018, June). #DebateNight: The Role and Influence of Socialbots on Twitter During the 1st 2016 US Presidential Debate. In Twelfth International AAAI Conference on Web and Social Media. **(ICWSM'18)**

Teaching

- CSCI3150: Computer Science and Society — Spring 2022
- CSCI5650: Graph Neural Networks (Graduated-Level Course) — Autumn 2021
- CSCI3150: Computer Science and Society — Spring 2021
- CSCI1130: Introduction to Computing Using Java — Autumn 2020

Academia Services

- Reviewer for conferences: NeurIPS'22, PAKDD'22, ECCV'22, ICML'22, ICCV'22, WWW'22, AAAI'21, CIKM'21, NIPS'21, IJCAI'21.
- Reviewer for journals: TKDE, Neurocomputing,

Selected Honors & Awards

- Hong Kong Postgraduate Studentships Award (CUHK) — Autumn 2020
- CECS Dean's List(ANU) — Autumn 2018
- Notional Scholarship Award (ZZU) — Autumn 2015