

Liangwei Yang

Contact Information

Affiliation **University of Illinois Chicago** ☎ : +1 (312)-607-9972
Department of Computer Science ☒ : lyang84@uic.edu
Big Data and Social Computing Lab 🌐 : <https://yangliangwei.github.io/>
Office 801 S Morgan St, Chicago, IL 60607, USA 📅 : 2023/08/27

Research Interests

Summary I am working in the fields of **Data Mining** and **Recommender System**. I have published **20 papers** in peer-reviewed conferences/journals including **WWW**, **SIGIR**, **CIKM**, **WSDM**, **TIST**, and others.

Impact My works have received in total **400+ citations**, with **H-index: 9** (by [Google Scholar](#))

Keywords Data Mining, Graph Neural Network, Recommender System, Personalization

Education Background

University of Illinois Chicago (UIC) Chicago, IL, USA
2020/09-Present Ph.D. Student, Department of Computer Science
Big Data and Social Computing Lab
Advisor: Prof. Philip S. Yu

University of Electronic Science and Technology of China (UESTC) Chengdu, China
2017/09-2020/07 Master Degree, Computer Science and Technology
Advisor: Prof. Hui Gao, and Prof. Tao Zhou

University of Electronic Science and Technology of China (UESTC) Chengdu, China
2013/09-2017/07 Bachelor Degree, Electronics Science and Technology

Five Representative Publications

- [1] **Liangwei Yang**, Zhiwei Liu, Yu Wang, Chen Wang, Ziwei Fan & Philip S. Yu. Large-scale personalized video game recommendation via social-aware contextualized graph neural network. **WWW**, 2022.
- [2] **Liangwei Yang**, Zhiwei Liu, Yingtong Dou, Jing Ma & Philip S. Yu. Consisrec: Enhancing gnn for social recommendation via consistent neighbor aggregation. **SIGIR**, 2021.
- [3] **Liangwei Yang**, Shengjie Wang, Yunzhe Tao, Jiankai Sun, Xiaolong Liu, Philip S. Yu & Taiqing Wang. DGRec: Graph Neural Network for Recommendation with Diversified Embedding Generation **WSDM**, 2023.
- [4] **Liangwei Yang**, Zhiwei Liu, Chen Wang, Mingdai Yang, Xiaolong Liu, Jing Ma & Philip S. Yu. Graph-based Alignment and Uniformity for Recommendation. **CIKM**, 2023.
- [5] **Liangwei Yang**, Hui Gao, Keyu Wu, Haotian Zhang, Changyu Li, Lixia Tang. Identification of cancerlectins by using cascade linear discriminant analysis and optimal g-gap tripeptide composition. **Current Bioinformatics**, 15(6), 2020.

Publications (Full List, chronological order)

Summary Published 12 conference papers, 8 journal articles,
These works received in total **400+ citations**, with **H-index: 9** (by [Google Scholar](#))

‡ : equal contribution † : corresponding author

Conference Paper

- [1] **Liangwei Yang**, Zhiwei Liu, Chen Wang, Mingdai Yang, Xiaolong Liu, Jing Ma & Philip S. Yu. Graph-based Alignment and Uniformity for Recommendation. **CIKM**, 2023.
- [2] Mingdai Yang, Zhiwei Liu, **Liangwei Yang**, Xiaolong Liu, Chen Wang, Hao Peng & Philip S. Yu. Group Identification via Transitional Hypergraph Convolution with Cross-view Self-supervised Learning. **CIKM**, 2023.
- [3] Xi Wu[‡], **Liangwei Yang**[‡], Jibing Gong, Chao Zhou, Tianyu Lin, Xiaolong Liu & Philip S. Yu. Dimension Independent Mixup for Hard Negative Sample in Collaborative Filtering. **CIKM**, 2023.
- [4] Yuwei Cao, **Liangwei Yang**, Chen Wang, Zhiwei Liu, Hao Peng, Chenyu You & Philip S. Yu. Multi-task Item-attribute Graph Pre-training for Strict Cold-start Item Recommendation. **RecSys**, 2023.
- [5] Yu Wang, Zhiwei Liu, **Liangwei Yang** & Philip S. Yu. Conditional Denoising Diffusion for Sequential Recommendation. **Arxiv**, 2023.
- [6] **Liangwei Yang**, Shengjie Wang, Yunzhe Tao, Jiankai Sun, Xiaolong Liu, Philip S. Yu & Taiqing Wang. DGRec: Graph Neural Network for Recommendation with Diversified Embedding Generation. **WSDM**, 2023.
- [7] Mingdai Yang, Zhiwei Liu, **Liangwei Yang**, Xiaolong Liu, Chen Wang, Hao Peng & Philip S. Yu. Ranking-based group identification via factorized attention on social tripartite graph. **WSDM**, 2023.
- [8] Jing Ma, **Liangwei Yang**[†], Qiong Feng, Weizhi Zhang & Philip S. Yu. Graph-based Village Level Poverty Identification. **WWW**, 2023.
- [9] Shen Wang[‡], **Liangwei Yang**[‡], Jibing Gong, Shaojie Zheng, Shuying Du, Zhiwei Liu & Philip S. Yu. MetaKRec: Collaborative Meta-Knowledge Enhanced Recommender System. **BigData**, 2022.
- [10] Yu Wang, Hengrui Zhang, Zhiwei Liu, **Liangwei Yang** & Philip S. Yu. Contrastvae: Contrastive variational autoencoder for sequential recommendation. **CIKM**, 2022.
- [11] **Liangwei Yang**, Zhiwei Liu, Yu Wang, Chen Wang, Ziwei Fan & Philip S. Yu. Large-scale personalized video game recommendation via social-aware contextualized graph neural network. **WWW**, 2022.
- [12] **Liangwei Yang**, Zhiwei Liu, Yingtong Dou, Jing & Philip S. Yu. Consisrec: Enhancing gnn for social recommendation via consistent neighbor aggregation. **SIGIR**, 2021.

Journal Article

- [1] Jing Ma, **Liangwei Yang** & Zhineng Hu. A Counterfactual Assessment of Poverty Alleviation Sustainability on Multiple Non-equivalent Household Groups. **Population Research and Policy Review**, 41(5), 2022.
- [2] Zhiwei Liu, **Liangwei Yang**, Ziwei Fan, Hao Peng & Philip S. Yu. Federated social recommendation with graph neural network. **ACM Transactions on Intelligent Systems and Technology**, 13(4), 2022.
- [3] **Liangwei Yang**, Hui Gao, Keyu Wu, Haotian Zhang, Changyu Li, Lixia Tang. Identification of cancerlectins by using cascade linear discriminant analysis and optimal g-gap tripeptide composition. **Current Bioinformatics**, 15(6), 2020.
- [4] Chungu Guo, **Liangwei Yang**, Xiao Chen, Duanbing Chen, Hui Gao, Jing Ma. Influential nodes identification in complex networks via information entropy. **Entropy**, 22(2), 2020.
- [5] Dennis Nii Ayeh Mensah, Hui Gao, **Liangwei Yang**. Approximation algorithm for shortest path in large social networks. **Algorithms**, 13(2), 2020.

- [6] Zhineng Hu, Jing Ma, **Liangwei Yang**, Liming Yao, Meng Pang. Monthly electricity demand forecasting using empirical mode decomposition-based state space model. **Energy & Environment**, 30(7), 2019.
- [7] **Liangwei Yang**, Hui Gao, Zhen Liu, Lixia Tang. Identification of phage virion proteins by using the g-gap tripeptide composition. **Letters in Organic Chemistry**, 16(4), 2019.
- [8] Zhineng Hu, Jing Ma, **Liangwei Yang**, Xiaoping Li, Meng Pang. Decomposition-based dynamic adaptive combination forecasting for monthly electricity demand. **Sustainability**, 11(5), 2019.

Academic Presentations

2023/05	The WebConf 2023	Austin, Texas, USA
2023/04	The 16th ACM International Conference on Web Search and Data Mining	Online
2023/03	The IRLab @ the University of Amsterdam (Invited Talk)	Online
2023/02	DEFIRST Reading Group @ Mila x Vector Institute (Invited Talk)	Online
2022/04	The WebConf 2022	Online
2021/07	The 44th International ACM SIGIR Conference on Research and Development in Information Retrieval	Online

Services

Conference Reviewer	IJCAI 2021, CIKM 2022/2023, KDD 2022/2023, WSDM 2022, AAAI 2023/2024, NIPS 2022/2023, ICML 2023, RecSys 2023, LOG 2023, SDM 2024, ICLR 2024
Journal Reviewer	TKDD, TKDE, TPAMI, JMLC, TORS, CIM, JEST
Student Volunteer	WSDM 2022

Teaching Experiences

Fall 2023	Teaching Assistant, Advanced Data Mining (CS 584), Instructor: Philip S. Yu	UIC
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Industry Experiences

2023	Research Intern. Salesforce Research	Palo Alto, USA
2022	Research Intern. ByteDance AML Research	Seattle, USA
2020	Algorithm Engineer. OPPO Research Institute.	Beijing, China
2019	Research Intern & Algorithm Engineer. Unionbigdata.	Chengdu, China

Computer and Communication Skills

Computing	Python, Pytorch, DGL	◇ Visualization: Matplotlib
Language	English (fluent), Chinese Mandarin (native)	◇ Typesetting: L ^A T _E X, MS Office, Markdown

References

Philip S. Yu, Distinguished Professor
 Wexler Chair in Information Technology
 University of Illinois Chicago, Chicago, IL, USA
 Email: psyu@uic.edu

Hui Gao, Professor
 University of Electronic Science and Technology of China, Chengdu, Sichuan, China
 Email: huigao@uestc.edu.cn