XIANG (TOMMY) YUE

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EDUCATION

Ph.D Student	Department of Computer Science and Engineering(CSE), The Ohio State University (OSU), USA	*2018-present*

Advisor: Prof. Huan Sun
Courses: Advanced Artificial Intelligence II, Machine Learning, Algorithms
Operating System, Foundations of Programming Language

B.Eng.	School of Computer Science, Wuhan University (WHU), China	*2014-2018*

GPA: 3.79/4.0, Rank: top 1%, Outstanding Graduates
Advisor: Prof. Wen Zhang
Thesis: Drug-disease associations mining and study (in Chinese)
(Excellent Graduation Thesis Award, top 5%)

RESEARCH INTERESTS

- Broadly interested in Data Mining and NLP real-world problems

- Graph mining: graph embedding, graph node similarity learning, recommendation system

- Text and NLP: Question answering (QA) and Dialogue system

- Applications: medical and clinical domain, e.g., Electronic Health Records (EHR) and clinical texts, biomedical graphs

PUBLICATIONS

After joining OSU (PhD research):

[1] **Xiang Yue**, Zhen Wang, Jingong Huang, Srinivasan Parthasarathy, Soheil Moosavinasab, Yungui Huang, Simon Lin, Wen Zhang, Ping Zhang and Huan Sun, "Graph Embedding on Biomedical Networks: Methods, Applications, and Evaluations", *preprint arXiv 1906.05017, under 2nd-round review by Bioformatics journal*

[2] Zhen Wang, **Xiang Yue**, Soheil Moosavinasab, Yungui Huang, Simon Lin and Huan Sun, "Surf-Con: Synonym Discovery on Privacy-Aware Clinical Data", *The 25th ACM SIGKDD Conference on Knowledge Discovery and Data Mining 2019* **(KDD 2019, research track, oral)**

Before joining OSU (undergraduate research):

* indicates the student first author/major contribution as a student

[3] Wen Zhang, **Xiang Yue***, Guifeng Tang, Wenjian Wu, Feng Huang, Xining Zhang , "SFPEL-LPI: Sequence-based Feature Projection Ensemble Learning for Predicting LncRNA-Protein Interactions", *PLOS Computational Biology*, Dec 2018

[4] Wen Zhang, **Xiang Yue***, Weiran Lin, Wenjian Wu, Ruoqi Liu, Feng Huang, Feng Liu , "Predicting drug-disease associations by using similarity constrained matrix factorization", *BMC Bioinformatics*, June 2018

[5] Wen Zhang, **Xiang Yue***, Feng Huang, Ruoqi Liu, Yanlin Chen, Feng Huang, Chunyang Ruan, "Predicting drug-disease associations and their therapeutic function based on the drug-disease association bipartite network", *Methods*, June 2018

[6] Guangsheng Wu, Juan Liu and **Xiang Yue**, "Prediction of drug-disease associations based on ensemble meta paths and singular value decomposition", *BMC Bioinformatics*, Dec 2018

[7] Wen Zhang, Feng Huang, **Xiang Yue**, Xiaoting Lu, Weitai Yang, Zhishuai Li, and Feng Liu , "Prediction of drug-disease associations and their effects by signed network-based nonnegative matrix factorization",*IEEE Internatinal Conference on Bioinformatics and Biomedicine 2018 (BIBM 2018)*, Dec 2018

[8] Guifeng Tang, Jingwen Shi, Wenjian Wu, **Xiang Yue**, Wen Zhang , "Sequence-based bacterial small RNAs prediction using ensemble learning strategies",*IEEE Internatinal Conference on Bioinformatics and Biomedicine 2017 (BIBM 2017)*, Dec 2018

[9] Wen Zhang, Yanlin Chen, Dingfang Li, **Xiang Yue** , "Manifold regularized matrix factorization for drug-drug interaction prediction",*Journal of Biomedical Informatics*, Nov 2018

[10] Wen Zhang, **Xiang Yue**, Feng Liu, Yanlin Chen, Shikui Tu, Qianlong Qu, Xining Zhang, "A unified frame of predicting side effects of drugs by using linear neighborhood similarity", *BMC Systems Biology*, Dec. 2017

[11] Wen Zhang, **Xiang Yue***, Yanlin Chen, Weiran Lin, Bolin Li, Feng Liu, Xiaohong Li, "Predicting drug-disease associations based on the known association bipartite network"
IEEE Internatinal Conference on Bioinformatics and Biomedicine 2017 (BIBM 2017)

[12] Wen Zhang, Jingwen Shi, Guifeng Tang, Wenjian Wu, **Xiang Yue**, Dingfang Li, "Predicting small RNAs in bacteria via sequence learning ensemble method"
IEEE Internatinal Conference on Bioinformatics and Biomedicine 2017 (BIBM 2017)

COURSE PROJECTS/PERSONAL PROJECTS

- ACISSTANT: an intelligent assistant bot for chit-chat and answering summer camp questions, *Project in the 2nd Conversational Intelligence Summer School (CISS) at UMASS Lowell.*

  - Topic: Question answering system

  - Key Techniques: Combination of Generative model and Retrieval model, Seq2seq-based Generative Model, Matching attention mechanism-based Retrieval model

- Medical Relation Prediction from Clinical Text via Hierarchical Encoder and Neighborhood Aggregation, *Spring 19' CSE 5249 course project*

  - Topic: Graph and text mining, information extraction

  - Key Techniques: Graph Neural Network (GNN), Hierarchical LSTM Encoder, Hierarchical Attention, Neighborhood Relation Constraint

HONORS & AWARDS

- KDD 2019 Student Travel Award — *Aug 2019*

- Excellent Graduation Thesis Award of WHU (Scale: 5%) — *June 2018*

- Outstanding Graduates of WHU (Scale: 10%) — *May 2018*

- LEI JUN Scholarship (Scale: Top 1 Winner of National Scholarship, the highest prize for students in WHU) — *2016-2017*

- First Class Scholarship (Scale: 5%), Three Times, WHU — *2014-2017*

- Excellent Student (Scale: 5%), Three Times, WHU — *2014-2017*

- National Scholarship (Scale: 1%), China — *2014-2015*

ACADEMIC SERVICES

- Program Committee/Reviewer: BIBM 2018

- External/Secondary Reviewer: KDD 2019, Neurocomputing, BMC Bioinformatics, BMC Systems Biology

TALKS

- Predicting drug-disease associations based on machine learning methods, Online Bioinformatics Forum, 06/2018

- Predicting drug-disease associations based on machine learning methods, Wuhan University, 05/2018

TECHNICAL SKILLS

Computer Languages	Python, MATLAB, JAVA, C/C++, HTML/CSS/JS
Library & Package	scikit-learn, numpy, pytorch, tensorflow
Databases	MySQL, MongoDB, SQLite
Tools	Git