YIFAN HOU

yifan.hou.z@gmail.com

EDUCATION

BEng in Information Science for Advanced Class in Mathematics and Physics　　　2014 - 2018
School of Electronic Information and Communications.
Huazhong University of Science and Technology, GPA: 3.6/4.0, Ranking: 7/30

Master of Philosophy in Computer Science and Engineering　　　2018 - Present
Department of Computer Science and Engineering.
The Chinese University of Hong Kong, GPA: 3.85/4.0

Summer Exchange　　　July 2017 - August 2017
Information Science and Engineering Summer School Program.
University of Illinois at Urbana-Champaign

RESEARCH PROJECTS

Graph Embedding　　　2018 - Present
Department of Computer Science and Engineering (CUHK)

· Propose a graph embedding framework to represent nodes in property graph by low-dimensional vectors in Euclidean space.
· Improve the accuracy of node classification significantly with embedded vectors by introducing a bias of neighborhood.
· Extend the model to support directed graphs or graphs with multiple types of edges.
· Evaluate some graph embedding algorithms/frameworks: DeepWalk, node2vec, Graph Convolution Networks, GraphSAGE.

Multi-Armed Bandits of Reinforcement Learning　　　2016 - 2017
School of Electronic Information and Communications (HUST)

· Propose a contextual online learning algorithm for course recommendation with learning personal preferences of users.
· Improve traditional continuous multi-armed bandits algorithm to support discrete connected course data.
· Prove that the continuous arm space can support large-scale discrete data theoretically in our algorithm.

Graph Query System　　　2018 - 2019
Department of Computer Science and Engineering (CUHK)

· Process and clean some very large-scale connected datasets (up to 500GB) derived from wiki, twitter, amazon and etc to property graph format.
· Evaluate some graph databases (OrientDB, Titan and JanusGraph) with very large-scale graphs on query latency and throughput with gremlin language in distributed implementation.

PUBLICATIONS

Yifan Hou, Pan Zhou, Jie Xu, and Dapeng Oliver Wu. *Course recommendation of MOOC with big data support: A contextual online learning approach,*　　　IEEE INFOCOM, 2018

Yifan Hou, Hongzhi Chen, Changji Li, James Cheng. *GraphGEN: A General Representation Learning Framework for Property Graph.*　　　ACM SIGKDD (Submitted)

Hongzhi Chen, Juncheng Fang, Changji Li, James Cheng, Chenghuan Huang, **Yifan Hou**, Jian Zhang, Xiao Yan. *Grasper: Efficient and Scalable Online Analytics over Property Graphs.*　　　USENIX ATC (Submitted)

AWARD

The National Scholarship: The highest award of students in China.	2016
Merit Student: An award for students with best performance in GPA and research in the school year (HUST).	2016
Outstanding Graduates Awards: An award for students with good performance in four years of study (HUST).	2018
Excellent Student Cadre: An award for students who have made significant contributions to the public (HUST).	2015

SKILLS AND INTERESTS

Skills	Familiar with Tensorflow, Graph Databases, Hadoop Environment, Linux and LaTeX.
Interests	Graph Representation, Graph Convolution Network, Reinforcement Learning, Neural Networks.
Program Languages	Expert on Python, Fluent on C++.