

# Yilun Jin | Curriculum Vitae

Department of CSE, The Hong Kong University of Science and Technology  
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I am currently a PhD student from Department of Computer Science and Engineering, The Hong Kong University of Science and Technology, Hong Kong SAR, advised by Prof. Qiang Yang. My current research interests lie in the field of Federated Learning, including algorithms and privacy & security. I am also interested in information network mining, including Graph Representation Learning, Graph Neural Networks, etc<sup>1</sup>.

## Education

- **Ph.D. Student, Dept. of CSE, HKUST** **Hong Kong SAR**  
*Computer Science and Engineering* 9.2019–  
Advisor: Prof. Qiang Yang
- **B. S., School of EECS, Peking University** **Beijing, China**  
*Computer Science, GPA: 3.7/4.0* 9.2015–7.2019  
Advisor: Prof. Guojie Song  
Selected courses: Advanced Algebra, Mathematical Analysis, Convex Optimization, Compiler Design.
- **B. Economics, National School of Development, Peking University** **Beijing, China**  
*Economics, GPA: 3.7/4.0* 9.2016–7.2019  
Selected courses: Intermediate Macro- & Micro-Economics, Econometrics, Financial Economics, Money and Banking, Special Topics on Reform in China
- **University of California, San Diego** **La Jolla, USA**  
*Exchange Student, GPA: 3.93/4.0* 9.2017–12.2017  
Courses: Computer Operating System, Machine Learning, Recommender System and Web Mining

## Experiences

- **SenseTime** **Beijing, China**  
*Research Internship on Video analysis* 3.2018–6.2018  
Implemented content-aware collaborative filtering based video recommendation algorithm, along with a dataset for video recommendation, consisting both video corpus and interaction data.
- **University of California, San Diego** **La Jolla, USA**  
*Research Intern, advised by Prof. Julian McAuley* 7.2018–9.2018  
Research intern on deep, visually and temporally aware recommender systems and user preference modeling. Extending existing work *Neural Collaborative Filtering (He and Chua, 2017)* to make it temporally-aware.
- **Peking University, China** **Beijing, China**  
*Research Assistant, advised by Prof. Guojie Song* 10.2018–8.2019  
Research on a wide range of topics through graph representation learning, including temporal aware, community aware and memory adaptive network embeddings. Several topics on Graph Neural Networks are also involved.

<sup>1</sup>Last Updated Dec. 2019

## Publications

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1. **GraLSP: Graph Neural Networks with Local Structural Patterns**  
**Yilun Jin**, Guojie Song, Chuan Shi 2.2020  
To Appear in the Thirty-Fourth AAAI Conference on Artificial Intelligence, 2020.
2. **Hierarchical Community Structure Preserving Network Embedding: A Subspace Approach**  
Qingqing Long, Yiming Wang, Lun Du, Guojie Song, **Yilun Jin**, Wei Lin 11.2019  
The 28th ACM International Conference on Information and Knowledge Management (CIKM). ACM, 2019.  
**Best Paper Runner-Up**
3. **DANE: Domain Adaptive Network Embedding**  
Yizhou Zhang, Shuwen Yang, Guojie Song, **Yilun Jin** 8.2019  
The 28th International Joint Conference on Artificial Intelligence (IJCAI). 2019.
4. **SecureBoost: A Lossless Federated Learning Framework**  
Kewei Cheng, Tao Fan, **Yilun Jin**, Yang Liu, Tianjian Chen, Qiang Yang 8.2019  
The 1st International Workshop on Federated Machine Learning for User Privacy and Data Confidentiality, in conjunction with IJCAI 2019

## Technical and Personal skills

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- **Mathematics Background:** Discrete Mathematics, Advanced Algebra, Convex Optimization, Mathematical Analysis, Probability and Statistics.
- **Programming Languages:** C, C++, Python (TensorFlow, PyTorch), Java,  $\text{\LaTeX}$ , CUDA, SQL
- **Language Skills:** Chinese (native speaker), English (proficient with speaking 26 in TOEFL, analytical writing 5.0 in GRE)
  - I am the primary writer for all the publications listed above.
- **General Skills:** Self motivation. Work well in a team.

## Teaching

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- **Teaching Assistant**, *Practice of Programming in C++*, Peking University, Spring 2019

## Awards

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- **AAAI Student Scholarship**, AAAI, 2020
- **Best Research Paper Runner-up**, *CIKM Research Track*, 2019
- **Award for Research Excellence**, *Peking University*, 2018
- **Merit Student**, *Peking University*, 2017
- **Huawei Scholarship**, *Peking University*, 2017
- **Yu Minhong Scholarship for overseas exchange**, *Peking University*, 2017
- **Founder Scholarship**, *Peking University*, 2016
- **Award for Academic Excellence**, *Peking University*, 2016

## Miscellaneous

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- Aside from academic activities, I also participate in activities related to civil aviation. I am a distinguished author of civil aviation in *zhihu*, a question-answering website similar to *Quora*. I am also a member of *ACICFG*, a group for caption making of documentary *Air Crash Investigation*, whose works have been

published to video websites including *acfun* and *bilibili*.