Yilun Jin | Curriculum Vitae

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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*.

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. See *Publications* for details.

*Last Updated May. 2020

Publications

1. **Graph Structural-topic Neural Network**
   Qingqing Long[*], ***Yilun Jin***[*], *Guojie Song, Yi Li, Wei Lin* *8.2020*
   To appear in the 26th SIGKDD Conference on Knowledge Discovery and Data Mining (KDD), 2020.

2. **EPNE: Evolutionary Pattern Preserving Network Embedding**
   Junshan Wang[*], ***Yilun Jin***[*], *Guojie Song, Xiaojun Ma* *6.2020*
   To appear in the 24th European Conference on Artificial Intelligence (ECAI), 2020.

3. **GraLSP: Graph Neural Networks with Local Structural Patterns**
   Yilun Jin, *Guojie Song, Chuan Shi* *2.2020*
   In the 34th AAAI Conference on Artificial Intelligence, 2020.

4. **Domain Adaptive Classification on Heterogeneous Information Networks**
   Shuwen Yang, Guojie Song, ***Yilun Jin***, *Lun Du* *7.2020*
   To appear in the 29th International Joint Conference on Artificial Intelligence (IJCAI-PRICAI), 2020.

5. **Active Domain Transfer on Network Embedding**
   Lichen Jin, Yizhou Zhang, Guojie Song, ***Yilun Jin*** *4.2020*
   In the Web Conference (TheWebConf, a.k.a. WWW), 2020.

6. **Hierarchical Community Structure Preserving Network Embedding: A Subspace Approach**
   Qingqing Long, Yiming Wang, Lun Du, Guojie Song, ***Yilun Jin***, *Wei Lin* *11.2019*
   In the 28th ACM International Conference on Information and Knowledge Management (CIKM). ACM, 2019.
   Best Research Paper Runner-up

7. **DANE: Domain Adaptive Network Embedding**
   Yizhou Zhang, Guojie Song, Lun Du, Shuwen Yang, ***Yilun Jin*** *8.2019*
   In the 28th International Joint Conference on Artificial Intelligence (IJCAI). 2019.

8. **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

([*] stands for *Equal Contribution*.)

Technical and Personal skills

- **Mathematics Background:** Discrete Mathematics, Advanced Algebra, Convex Optimization, Mathematical Analysis, Probability and Statistics.
- **Programming Languages:** C, C++, Python (TensorFlow, PyTorch), Java, LaTeX, SQL
- **Language Skills:** Chinese (native speaker), English (proficient with speaking 26 in TOEFL, analytical writing 5.0 in GRE)
  - I take charge of writing in most of the publications listed above.
- **General Skills:** Self motivation. Work well in a team.

Teaching

- **Teaching Assistant**, *Practice of Programming in C++*, Peking University, Spring 2019
- **Teaching Assistant**, *COMP4631: Computer and Communication Security*, The Hong Kong University of Science and Technology, Spring 2020

Services

- **Program Committee**: TheWebConf 2020, ICONIP 2020.
- **Secondary Reviewer**: ICLR 2020, AAAI 2020, ACL 2020, NeurIPS 2020.

Awards

- **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

- 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*.