Junheng Hao | Curriculum Vitae

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Education

University of California, Los Angeles (Sept. 2017 - Present) **Los Angeles, USA**
Ph.D. Candidate, Department of Computer Science | **Advisors:** Yizhou Sun, Wei Wang

Tsinghua University (Aug. 2013 - July. 2017) **Beijing, China**
Bachelor of Engineering, School of Information Science and Technology

Publications

1. **Junheng Hao**, Tong Zhao, Jin Li, Luna Xin Dong, Christos Faloutsos, Yizhou Sun, Wei Wang. "P-Companion: Framework for Diversified Complementary Product Recommendation", accepted by the 29th ACM International Conference on Information and Knowledge Management (CIKM2020), Applied Research Track.
2. **Junheng Hao**, Chelsea J.-T. Ju, Muhao Chen, Yizhou Sun, Carlo Zaniolo, Wei Wang. "Bio-JOIE: Joint Representation Learning of Biological Knowledge Bases", accepted by The 11th ACM Conference on Bioinformatics, Computational Biology, and Health Informatics (ACM BCB 2020), **Best Student Paper Award**.
3. **Junheng Hao**, Muhao Chen, Wenchao Yu, Yizhou Sun, Wei Wang. "Universal Representation Learning of Knowledge Bases by Jointly Embedding Instances and Ontological Concepts", published on 25th ACM SIGKDD International Conference on Knowledge Discovery & Data Mining (KDD 2019).
4. Chen-Shuo Sun, Xin Pei, **Junheng Hao**, Zuo Zhang. "Accident Impact Analysis in Traffic Safety and Mobility Using Group Network Features", published on *Transportation Research Part B: Methodological (TRB)*, 2018.
5. Tanachat Nilanon, Jiayu Yao, **Junheng Hao**, Yan Liu. "Normal/Abnormal Heart Sound Recordings Classification Using Convolutional Neural Network", accepted and presented at *Computing in Cardiology* (CinC), 2016.
6. Chen-Shuo Sun, **Junheng Hao**, Xin Pei, Zuo Zhang. "A Data Driven Approach for Evaluation of Urban Accident Impacts", presented at *IEEE Conference on Intelligent Transportation Systems* (ITSC 2016)
7. **Junheng Hao**, Chuan Lei, Abdul Quamar, Vasilis Efthymiou, Fatma Ozcan. "OntoGNN: Hybrid Graph Neural Networks for Medical Ontology Matching"(preprint, under review)
8. **Junheng Hao**, Lu-An Tang, Yizhou Sun, Zhengzhang Chen, Junghwan Rhee, Zhichun Li, Haifeng Chen, Wei Wang. "MEGNET: Multi-source Invariant Graph Knowlwedge Transfer" (preprint, under review)

9. Jyun-Yu Jiang, Chelsea J.-T. Ju, **Junheng Hao**, Muhao Chen, Wei Wang. "JEDI: Circular RNA Prediction based on Junction Encoders and Deep Interaction among Splice Sites" (prerpint, under review).
10. Muhao Chen*, **Junheng Hao***, Jyun-Yu Jiang, Zijun Xue, Yizhou Sun, Carlo Zaniolo, Wei Wang. "Latent Translational Dialogue State Tracking" (prerpint, under review).

Research & Work Experiences

Comprehensive KG Representation Learning | Research Assistant **Los Angeles, CA**
Lab: UCLA Data Mining Group, Scalable Analytics Institute (ScAi)

- Joint embedding model (JOIE) of the instance-ontology view in knowledge graphs for knowledge completion and entity typing
- Incorporating ontologies in wide domains of biological knowledge bases

Ontology Matching by Utilizing Graph Neural Networks | PhD Intern **San Jose, CA**
Lab: IBM Research AI (Almaden) | **Mentors:** Chuan Lei, Berthold Reinwald, Fatma Ozcan

- Empowering hybrid graph neural networks (GNNs) for ontology matching between relational databases and standard healthcare ontologies

Diversified Complementary Recommendation | Applied Scientist Intern **Seattle, WA**
Lab: Amazon Product Graph Team | **Mentors:** Tong Zhao, Luna Dong, Christos Faloutsos

- Enabling diversified complementary recommendation from large-scale product graphs and hierarchical ontology.

Knowledge Transfer on Enterprise Blueprint Graph | Research Intern **Princeton, NJ**
Lab: NEC Lab America, Inc. | **Mentors:** Lu-An Tang, Zhichun Li, Haifeng Chen

- Major project: Graph-based Multi-source graph knowledge transfer and network fusion on enterprise engines for malicious process detection.
- Minor project: Neural based classification modeling for DNS security alerting system.

PhysioNet: Heart Sound Recordings Classification | Visiting Scholar **Los Angeles, CA**
Advisor: Yan Liu (Melady Lab, University of Southern California)

- Participating PhysioNet Challenge 2016 (Phonocardiogram classification by revised-AlexNet on EEG spectrogram features).

Data-Driven Methods in Traffic Feature Analysis | Undergrad Researcher **Beijing, China**
Advisors: Zuo Zhang, Xin Pei (Tsinghua University)

- Using spatial/temporal information of traffic intersections to promote road network facility and avoid congestion.

Academic Services

- PC member of ICLR 2021 AAAI 2021, KDD 2020, ICML 2020, ECML-PKDD 2020, AACL-IJCNLP 2020, etc.

- Journal/Conference Reviewer: TIST, TPAMI, TKDD, WDSM, ECML/PKDD, EMNLP, ICDM.

Teaching

- **[Fall 2020, Fall 2018]** CS145: Introduction to Data Mining (Instructor: Yizhou Sun).
- **[Spring 2019, Winter 2019]** CS32: Introduction to Computer Science II, Data Structures (Instructor: David Smallberg).

Skills

- **Programming Skills:** Python, Java, C/C++, MATLAB, Java.
- **Operating system & Tools:** Linux(Ubuntu)/Mac OS X, Tensorflow, PyTorch
- **Language:** Mandarin (Native), English (Proficient), German (Basic), Spanish (Basic), Modern Arabic (Basic)

Extra-curricular

- **UCLA LGBTQ Campus Resource Center,** Outreach committee member.
- **Queer in AI Community,** Member and conference/workshop volunteer.
- **Conference Volunteering:** KDD2019, KDD2020, EMNLP 2020, NeurIPS 2018, NeurIPS 2020.