JUNHENG HAO

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Education

University of California, Los Angeles

Ph.D. Candidate, Department of Computer Science

Advisors: Yizhou Sun, Wei Wang

• Major field: Information and Data Management, Minor fields: Artificial Intelligence, Statistics | GPA: 3.8/4.0

Tsinghua University

Beijing, China

Los Angeles, USA

Sept. 2017 - Present

Bachelor of Engineering, School of Information Science and Technology

Aug. 2013 - July. 2017

• Outstanding graduate in Department of Automation, Tsinghua University

Research Interests

Knowledge Graph, Graph/Text Mining, Natural Language Processing, Machine Learning

Research Experiences

Diversified Complementary Recommendation | Applied Scientist Intern

Seattle, WA

Lab: Amazon Product Graph Team | Mentors: Tong Zhao, Luna Dong, Christos Faloutsos June 2019 - Present

Knowledge Transfer on Enterprise Blueprint Graph | Research Intern

• Enabling diversified complementary recommendation from large-scale product graphs and hierarchical ontology. Princeton, NJ

Lab: NEC Lab America, Inc. | Mentors: Lu-An Tang, Zhichun Li, Haifeng Chen June 2018 - Sept. 2018

- Major project: Multi-source Graph Knowledge Transfer on ASI Enterprise Engine.
- Minor project: Deep-learning based End-point DNS Monitoring System for Malicious Process Detection.

Multi-view & Multi-lingual KG Representation Learning | Research Assistant Lab: Scalable Analytics Institute (ScAi)

Los Angeles, CA Sept. 2017 - Present

- Joint embedding model (JOIE) of the instance-ontology view in knowledge graphs for knowledge completion
- Ongoing projects: Semantic search on multi-lingual KGs. Imputation on gene ontology and protein graphs.

DynaMIT2.0: Mobility in Future | Research Intern

Singapore City, Singapore

Advisors: Moshe Ben-Akiya (MIT), Ravi Seshadri (SMART Lab)

Aug. 2016 - Sept. 2016

Lab: Future Mobility Computing Lab, Singapore-MIT Alliance for Research and Technology

• Improvement online state-update algorithms on status prediction model DynaMIT2.0 in transportation networks.

PhysioNet Challenge: Heart Sound Recordings Classification | Visiting Student Mentor: Yan Liu (Melady Lab, University of Southern California)

Los Angeles, CA Jun. 2016 - Aug. 2016

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

Data-Driven Methods in Traffic Feature Analysis | Research Assistant Advisors: Zuo Zhang, Xin Pei (Tsinghua University)

Beijing, China Sept. 2015 - May 2016

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

Publications

- [1] Junheng Hao*, Tong Zhao*, Luna Xin Dong, Christos Faloutsos, Jin Li, Yizhou Sun, Wei Wang. "Diversified Product Complementary Recommendation", submitted to The Web Conference 2020 (WWW 2020, under review)
- [2] 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 ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD 2019)
- [3] 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 (2018)
- [4] Tanachat Nilanon, Jiayu Yao, Junheng Hao, Yan Liu. "Normal/Abnormal Heart Sound Recordings Classification Using Convolutional Neural Network", presented at Computing in Cardiology 2016 (CinC 2016)
- [5] 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)

Academic Services

- PC member of ICML 2020 and SoCal NLP Symposium 2019
- PC member of 1st CDEC Workshop and 2nd CDEC Workshop, IEEE ICDM 2018/2019
- Reviewer: WDSM, ECML/PKDD, EMNLP, ICDM, etc.

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