Jiayuan Huang

Mobile: (412) 736-1206 | Email: jiayuan3@andrew.cmu.edu | Home Page: jiayuanhuang.info

Education

Zhejiang University   Hangzhou, China
BEng in Electronic and Computer Engineering   Sept. 2017 - Jun. 2021
- GPA: 3.85/4.00
- Selected Honors: Top 20 of Student Academic Achievements of Zhejiang University (2020), 3rd Scholarship of Zhejiang University (2018,2019), Dean's List (2019), Student Leadership Award (2018,2019)

University of Illinois at Urbana-Champaign   Champaign, United States
BS in Computer Engineering   Aug. 2017 - May. 2021
- GPA: 3.78/4.00
- Relevant Coursework: Data Structures (A+), Computer System & Programming (A), Artificial Intelligence (A+), Natural Language Processing (A), Digital Systems Laboratory (A+), Applied Parallel Programming (A)

Publications

- **J. Huang**, Y. Du, S. Tao, K. Xu, P. Xie. "Structured Pretraining for Commonsense Generation" (Accepted by TACL)
- Y. Du, **J. Huang**, S. Tao, H. Wang. "Knowledge Graph Construction for Intelligent Maintenance of Power Plants," 28 Nov 2019, Advances in E-Business Engineering for Ubiquitous Computing (IEEE ICEBE 2019)
- T. Xie, **J. Huang**, Y. Du, S. Tao, Q. Li, H. Wang "A Deep-Learning Based Framework for Construction and Reasoning of Knowledge Graph from Power Plant Operation Report" (under review)

Research Experience & Projects

Commonsense Knowledge Graph Complementation   **Supervisor:** Prof. Pengtao Xie
ECE Department, University of California San Diego   Jun. 2020 – Mar. 2021
- Commonsense Knowledge Graph (CKG) is needed to develop commonsense-grounded NLP applications, but it is time-consuming to construct CKGs manually.
- Proposed several approaches that leveraged the high-order structure in CKGs to capture the high-order relationships between concepts. Human evaluation and automatic evaluation results demonstrated the effectiveness of our methods.
- Paper accepted by TACL as the co-first author.

Knowledge Graph Construction for Intelligent Maintenance of Power Plant   **Supervisor:** Prof. Hongwei Wang
ECE Department, Zhejiang University   Apr. 2019 - June. 2020
- Provided power plants with intelligent operation services, such as maintenance reference and intelligent reasoning and searching, by constructing knowledge graphs from maintenance reports.
- Built an end-to-end neural network model to automatically process the maintenance report, extracted the key information, and then generated the knowledge graph.
- Published *Knowledge Graph Construction for Intelligent Maintenance of Power Plant* in ICEBE 2019 as the second author.

Design of Operating System   **Supervisor:** Prof. Steven S. Lumetta
ECE Department, University of Illinois at Urbana-Champaign   Sept. 2019 - Dec. 2019
- Implemented x86-based operating system from scratch in collaboration with a team, including memory paging and segmentation, drivers of peripheral equipment, and multi-process scheduling.
- Developed file system and multi-process scheduling; wrote drivers for keyboard and RTC in C.

Industry Experience

Zhejiang Feirong Robot Science and Technology Co., Ltd.   Hangzhou, China
Test Engineer   Jun. 2018 - Jul. 2018
- Responsible for debugging the developed cloud platforms and setting up the testing environment.
- Collaborated with developers to identify defects and optimize developed software.

Community Services & Extracurricular Activities

- ***Reviewer,*** the reviewer in Thirty-Fifth AAAI Conference on Artificial Intelligence   Nov. 2020
- ***Chairman***, Students' Association Union of International Campus, Zhejiang University   Aug. 2018 – Aug. 2019
- ***Volunteer Leader***, Rural Community Development Program, Sri-Lanka   Aug. 2018
- ***Teaching Assistant***, *ECE 120 - Introduction to Computing (UIUC)*   Jan. 2021 - Present