Han Zhou

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Research Interest: Computational Biology, Knowledge Graph, Graph Neural Networks, NLP

EDUCATION

The University of Waterloo (Expected)   Jan.2024 -

PhD in Computer Science

The University of Hong Kong   Sep.2018 - Dec.2020

Master of Science in Computer Science

Southwestern University of Finance and Economics   Sep.2014 - Jun.2018

Bachelor of Management in Info Management & Info System | GPA: 3.6/5.0 | Ranking: 11/120

PUBLICATIONS

[1] Incorporating Global information in local Attention for Knowledge Representation Learning.

Yu Zhao, **Han Zhou***, Ruobing Xie, Fuzhen Zhuang, Qing Li, and Ji Liu. (* Equal Contribution)*

Findings of ACL,2021

[2] Connecting Embeddings Based on Multiplex Relational Graph Attention Networks for Knowledge Graph Entity Typing.

*Yu Zhao, **Han Zhou**, Anxiang Zhang, Ruobing Xie, Qing Li, and Fuzhen Zhuang.*

TKDE, 2022

RESEARCH EXPERIENCE

Manifold Alignment   Apr.2023 - Now

Advisor: Dr. Lu Yang (Batmen Lab, UWaterloo)

- Improve unsupervised manifold alignment to better integrate heterogeneous single-cell measurements;

EI-Aware Graph Attention Network   Jan.2020 - Dec. 2021

Advisor: Dr. Yu Zhao (Fintech Lab, SWUFE)

- Proposed an *entity importance-aware attention graph neural network* (*EIGAT*) , prove the effectiveness of global information in knowledge representation learning;
- Proposed an *attention-based random walk* algorithm to estimate entity importance upon global structural information;
- Empirically demonstrate the effectiveness of our model, achieving the SOTA performance on various benchmark of link prediction tasks;
- Paper link:https://aclanthology.org/2021.findings-acl.115.pdf (**Accepted, Co-first Author**)

Entity Typing on Heterogeneous Relational Graph   Jan.2020 - Dec. 2021

Advisor: Dr. Yu Zhao (Fintech Lab, SWUFE)

- Proposed a *multiplex relational graph attention neural network* (*MRGAT*) , integrated the heterogeneous structured information including entity typing tuples and entity relation triples theoretically;
- Empirically validated the effectiveness of *MRGAT*, against the SOTA performance on various benchmark of entity type prediction and classification tasks;
- Paper link: https://ieeexplore.ieee.org/abstract/document/9677939/(**Accepted, 2nd Author**)

Text Analyze on Financial Statements   May.2019 - Nov. 2020

Advisor: Dr. Kyungran Lee. (Business School, HKU)

- *Web crawling* and data cleaning on over 190k financial statements on websites using Python;
- *Sentiment analysis* on the financial statements. Read related papers and compared financial word dictionaries;
- Extracted features for modeling. Applied *NLP toolkits* (Python), i.e., *NLTK*, *Spacy*, to achieve sentence segmentation, tokenization, word frequency statistic and pos-tagging tasks.

User Comments Analyze on Crowd Funding Platforms(*SNU)* Aug.2016
- Crawled user comments from 5 crowd-funding platforms from mainland and Taiwan;
- Sentiment analysis on user comments;
- Built multiple regression model on user concerns and completion rate of crowd funding using SPSS.

WORKING EXPERIENCE

Baidu (China) Co., Ltd - *Data Analyst* Dec.2020 - Jan. 2023
Big Data Group, Global Product Center
- *Big data analysis*. Took charge of user profile construction, user behavior analysis and user retention promotion using Hive SQL/Python and big data analysis platforms.
- *Big data processing*. Took charge of data extraction, cleaning and integration on 10+ billion data (ETL). Designed and constructed data warehouse.
- *Big data platform*. Designed and led a team to build business intelligence platforms including AB Test Platform, User Profile Platform, Advertising Analysis Platform etc.

Chengdu Meng Xiang Technology Co., Ltd. - *Data Analysis Intern* Oct.2017 - Feb.2018
- Redesigned week-data dashboards and analyzed business data by *SQL*, *Python*, and *Weka* and provided data analysis reports.

HONORS

- Excellent Staff (BAIDU) 2022
- Efficient Promotion Prize (BAIDU) 2022
- China Postgraduate Scholarships (HKU) 2019
- Excellent Students Awards **(**Top 5%, SWUFE**)** 2017
- The third prize of "Huadi Cup" Chinese Undergraduate Computer Design Contest, Sichuan Final 2017
- Individual Scholarship (Top 2% , SWUFE) 2015
- The Second Class Academic Scholarship (Top 10%, SWUFE) 2015
- The silver prize of "Internet+" Undergraduate Student Innovation and Entrepreneur Contest, Sichuan Final 2015