Zheng Huang

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Education

University of Virginia *Aug 2019 - Dec 2021*
Master of Computer Science, major GPA: 3.95/4.00 *Charlottesville, VA, United States*
- Coursework: Design and Analysis of Algorithms, Machine Learning, Vision&Language, Graph Mining, Operating System

University of British Columbia *June 2018 - August 2018*
UBC Visiting Student, Department of Electrical and Computer Engineering *Vancouver, BC, Canada*

Hebei University of Technology *Sept 2015 - June 2019*
Bachelor of Computer Science, major GPA: 87/100 *Tianjin, China*

Programming

- Programming in Python/Java/C++/C/R/Javascript/HTML/CSS/SQL/ MATLAB
- Skillful in PyTorch/TensorFlow/Scikit-learn/Latex

Research Experience

Empowering Next POI Recommendation with Multi-Relational Modeling *Sep 2020 - Jul 2021*
Research Assistant, advised by Professor Jundong Li
- Studied on Points of Interests (POI) recommendation by capturing the influence of multiple relations
- Utilized multiple Graph Convolutional Networks (GCNs) with Self-Attention mechanism to capture multiple user-user social relations (family or colleague) and user-location check-in relations
- Adopted coupled Recurrent Neural Networks (RNNs) to capture the mutual influence between users and POIs over time
- Conducted in-depth research on recommender system, sequential recommendation and Graph Convolutional Networks

Assessing the Causal Impact of COVID-19 Related Policies on Outbreak Dynamics *Sep 2020 - Mar 2021*
Research Assistant, advised by Professor Jundong Li
- Studied on the causal effect of different policies in reducing the spread of COVID-19 in the US
- Worked on a team and developed a neural network framework (GCNs&RNNs) based on time-varying observation data to control the influence of confounders, and integrated data from different data sources
- Investigated the problem of causal inference and COVID-19 observational social network data

Identify Human-brand Co-location Network *May 2020 - Jan 2021*
Research Assistant, advised by Professor Natasha Zhang Foutz
- Studied on identifying broad human and brand co-location networks to advise personalized recommendation
- Preprocessed large scale location GPS data and decorated POIs for check-in data in a distributed environment with PySpark
- Investigated the application of distributed computing and clustering algorithms

Project Experience

Enrich Sequence to Sequence Video to Text Captioning with Action Recognition *Sep 2020 - Dec 2020*
- Proposed a novel model, S2VTACT, to capture action features from video skeleton graphs with spatial-temporal GCN
- Utilized a stack of 2 recurrent units (GRU) encoders and decoders to learn video captioning with injected action features
- Investigated video captioning and applications of natural language processing (NLP)

Publication

- **Zheng Huang**, Jing Ma, Natasha Zhang Foutz and Jundong Li, "Empowering Next POI Recommendation with Multi-Relational Modeling", SIGIR 2022
- Jing Ma, Yushun Dong, **Zheng Huang**, Daniel Mietchen and Jundong Li, "Assessing the Causal Impact of COVID-19 Related Policies on Outbreak Dynamics: A Case Study in the US", WWW 2022, Arxiv

Others

- **Awards**: Top Academic Fellowship (2016, 2017, 2018)
- **External Reviewer**: PAKDD, WSDM
- **Interests**: Guitar, Piano, Driving