Zixin CHEN

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EDUCATION

Department of Computer Science, Hong Kong University of Science and Technology (HKUST)

Hong Kong, China

Ph.D. in Computer Science

Supervisor: Prof. QU, Huamin

Sep 2022 - June 2026 (expected)

Department of Mathematics, Hong Kong University of Science and Technology (HKUST)

Bachelor of Data Science and Technology

Minor major in Business Sep 2018 - June 2022

Awards: Dean's List

PUBLICATION

[C1] Bias-Aware Design for Informed Decisions: Raising Awareness of Self-Selection Bias in User Ratings and Reviews Qian Zhu, Leo Yu-Ho Lo, Meng Xia, ZiXin Chen, Xiaojuan Ma

The 25th ACM Conference On Computer-Supported Cooperative Work And Social Computing (CSCW 2022)

RESEARCH EXPERIENCES

Knowledge Graph Construction for legal contracts

Hong Kong, China

Final Year Project, HKUST, Supervisor: Prof. Song Yangqiu

Sept. 2021 - May 2022

- Led the project. Constructed a KG-based contract review system.
- Constructed a KG for legal field to solve the lack of legal knowledge problem.
- Constructed a full-stack automated contract review system.

Gaining insights from noisy data: designing transparent system for online decision-making

Hong Kong, China Jan. 2021 – Sept. 2021

Research Assistant, HKUST, Supervisor: Prof. MA Xiaojuan

- Responsible for the development of experimental database with Parse Platform
- Participated in designing the coding scheme as well as the coding of user data & top keywords data
- Crawling web data from TripAdvisor to collect all hotels' data in London
- Participated in the experimental web page development and analyzing the experimental data

Exploring Collaborative Feature Engineering with Mixed Suggestions in Computational Notebooks

- Collected and arranged the valuable human-provided features from Kaggle
- Developed an extension on Jupyter Lab to display our feature visualization under specific cells and realized several external extension functions for further research requirements
- Evaluated and refined the experiments designs (e.g., model selection, assessment criteria selection, pipeline structure)
- Configured, evaluated, and maintained the experiment servers
- Recruited experimental subjects, participated in user experiments, arranged, and analyzed the experimental data

RNN for Biological Neural Networks

Hong Kong, China

Research Assistant, HKUST, Supervisor: Prof. HU Yu

Sep. 2020 – Dec. 2020

- Reproduced one and integrated two of Bio-RNN related papers to gain insight about how complex temporal dynamics in real brain neural networks can be added into some regular RNN such as LSTM and GRU
- Built up a biological modified RNN model to mimic both individual activity of each neuron as well as the coordinated population level behaviors
- Evaluating and analyzing the model with several well-known biology experiments (parametric working memory, transient & persistent memory delay) and comparing with the baseline results implemented with mice.

SELECTED PROJECT EXPERIENCES

Text Sentiment Analysis

Utilized data pre-processing methods such as tokenize and n-grams, together with data analysis approaches (e.g., Pearson correlation, ANOVA, etc.) to fitted different models (e.g., Logistic regression, LSTM with Word-2-Vec, CNN and BERT) to analysis the sentiment of restaurant reviews data. As the result, our prediction accuracy ranked 2nd among a total of 40+ groups.

Social Network Mining

Utilized Deep Walk and Node2Vector methods to work on link prediction with the data of social network connections.

Rating Prediction

Utilized Wide & Deep Learning (WDL) and Neural Collaborative Filtering (NCF) models to analysis and estimate a business rating prediction system.

COMPETITION EXPERIENCES

City Change Maker Beijing, China

Team Member, Tsinghua University

Jul. 2019 - Aug. 2019

- Designed a platform application called "The Green House" to call for energy-efficient buildings and improve the communication efficiency between users and architects.
- As one of the two speakers to present in the interim and final open replies.
- The group won the first prize (No.1 among all ten groups).

OTHER EXPERIENCES

Film Society Hong Kong, China Publication Secretary, HKUST Dec. 2018 - May 2020

- Designed and issued 8 film-related magazines
- Interviewed director Wong Jing and organized interview manuscripts as an article in the semiannual magazine
- Organized the 'Boat Trip' function as the 'Person in Charge'

TECHNICAL SKILLS

Language: C/C++, Python, R, SQL, JavaScript/TypeScript Tools: GitHub, Oracle, HTML/CSS, Photoshop, InDesign Frameworks: NumPy, Pandas, PyTorch, TensorFlow, D3.js