Wenjie Yang

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Clear Water Bay, Kowloon, Hong Kong

Research Interests

Social Computing System, Computational Social Science, HCI, NLP, Misinformation, Mental Health

Education

The Hong Kong University of Science and Technology (HKUST), Hong Kong 2020 - 2022
M.Phil. in Computer Science and Engineering
GPA: 3.78/4.3; Advisor: Xiaojuan Ma

Beijing Forestry University, Beijing, China 2015 - 2020
B.E. in Computer Science and Technology
GPA: 3.87/4.0

Publications and Manuscripts

Conference Papers

[c.3] **W. Yang**, S. Wang, Z. Peng, C. Shi, X. Ma, D. Yang. Know it to Defeat it: Exploring Health Rumor Characteristics and Debunking Efforts on Chinese Social Media during COVID-19 Crisis. *AAAI International Conference on Web and Social Media* (**ICWSM '22**). [∼20.0% Acceptance Rate]

[c.2] Z. Sun, S. Wang, **W. Yang**, Y. Onur, C. Shi, X. Ma. A Postcard from Your Food Journey: Self-Reflection on Social Food Posting. *ACM Designing Interactive Systems Conference* (**DIS '20**). [24.0% Acceptance Rate]

[c.1] **W. Yang**, G. Sun, X. Ding, X. Zhang. Budget-feasible User Recruitment in Mobile Crowdsensing with User Mobility Prediction. *IEEE International Performance Computing and Communications Conference* (**IPCCC '18**). [28.8% Acceptance Rate]

Manuscripts

[m.3] **W. Yang**, Z. Wu, N. Mok, X. Ma. Study on Computational Social Science. (In submission to **CHI '22**).

[m.2] **W. Yang**, X. Ma, A. Halevy. Study on Knowledge Base Construction. (In submission to **WWW '22**).

[m.1] T. Kim, Q. Guo, H. Kim, **W. Yang**, M. Li, X. Ma. Study on User Interface Toolkit. (Work-in-Progress).

Research Experience

Knowledge Computation Lab, HKUST Sep 2021 - Present
Advised by Prof. Yangqiu Song

- Working on a commonsense reasoning project related to prompt-based learning for KDD 2022.

Human-Computer Interaction Lab, HKUST Sep 2020 - Present
Advised by Prof. Xiaojuan Ma, Prof. Diyi Yang (Georgia Tech), and Prof. Alon Halevy (Facebook AI)

- Applied BERT to identify urgent assistance requests made by COVID-19 patients from Weibo posts spanning four months (245 GB) during the early crisis. Employed mixed research methods (e.g., thematic analysis and interrupted time series analysis) to examine the affordances and limitations of using microblogging tools to seek help in crisis situations. [m.3]
- Created a pipeline for mining associations between subjective experiences that people generally agree on (e.g., *restaurant* → *food/service/cleanliness*), which helps search systems better understand and support subjective queries (e.g., *nice restaurant nearby*). [m.2]

- Applied visual and quantitative analysis to analyze 100 million posts on Weibo during COVID-19 to compare the characteristics between two types of health rumors (*raising hope* or *causing dread*). Examined the debunking strategies of social media users using persuasion theory. Adopted Granger causality tests to show the association between the change in rumor discussions and debunking activities. [c.3]

Department of Computer Science and Technology, Peking University Sep 2019 - Aug 2020
Advised by Prof. Leye Wang and Prof. Natasha Zhang Foutz (UVa)

- Used Keras to fine-tune pre-trained CNNs (e.g., ResNet50) to classify 10K images of T-shirt designs across ten different tasks (e.g., sentiment and concreteness).
- Created spatial-temporal forecasting models (e.g., GeoMAN) through Tensorflow for an Urban Computing toolkit and wrote documentation. [project]

Human-Computer Interaction Lab, HKUST Jun 2019 - Sep 2019
Advised by Prof. Xiaojuan Ma

- Built a pipeline using Flask and JavaScript to extract nutrition information and emotions from food posts and generate digital postcards to encourage users to reflect on their physical and mental health. [c.2]
- Interviewed dyads to understand the role of a text-messaging system in improving the experience of romantic conversations online. [m.1]

Mobile Computing Lab, Beijing Forestry University Sep 2017 - May 2018
Advised by Prof. Guodong Sun

- Examined the task allocation problem in crowdsourcing considering human mobility. Modeled user historical trajectory with LSTM and proposed a greedy algorithm to solve the optimization problem. [c.1]

Teaching and Mentoring Experience

COMP1021 Introduction to Computer Science Fall 2021
Teaching Assistant, HKUST

Undergraduate Research Opportunities Program Summer 2021
Mentor of undergraduate researchers (Zhiyang Wu and Nga Yiu Mok), HKUST

Skills

Research: Statistical analysis, Interview, Survey, Literature review, Web crawling, Mturk, Thematic analysis
Computing: Python, C, Java, Bash; Pytorch, Tensorflow, Pandas, Keras, Transformers
Design/Prototyping: HTML/CSS, JavaScript, Adobe PS/PR; Flask, SQL, Docker, ElasticSearch, AWS, Android
Language: Mandarin, Cantonese, English (TOEFL 107; Speaking 25)

References

Xiaojuan Ma, mxj@cse.ust.hk
Associate Professor, Department of Computer Science and Engineering, HKUST

Diyi Yang, diyi.yang@cc.gatech.edu
Assistant Professor, School of Interactive Computing, Georgia Institute of Technology

Alon Halevy, ayh@fb.com
Director, Facebook AI