

JIAQI WU

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Portfolio: <https://kolvacs-w.github.io/WJQ.github.io/>

EDUCATION

University of Michigan, Ann Arbor

Ann Arbor, MI, USA

Master of Science in Information, Human Computer Interaction.

September 2022 - May 2024(expected)

Fudan University

Shanghai, China

Bachelor of Science, Computer Science and Information Security.

September 2018 - July 2022

Junior Year GPA: 3.63/4.0; Cumulative Major GPA: 3.56/4.0

Relevant Coursework:

Algorithm Design and Analysis (A), Introduction to Computer System I/II (A-/A), Software Security (A)

WORKING PAPER & PUBLICATION

- [Under Review] *Jiaqi Wu*, Bodian Ye, Qingyuan Gong, Atte Oksanen, Cong Li, Jingjing Qu, Felicia F. Tian, Xiang Li, Yang Chen.
Characterizing and Understanding the Development of Social Computing through DBLP: A Data-Driven Analysis

RESEARCH EXPERIENCE

University of Michigan, Ann Arbor

Sept 2022–Now

Diffusion Model in Data Visualization

- Conducted detailed research and experiments on the feasibility of applying computer vision diffusion model to logical data visualizations
- Used Pytorch stable diffusion model to develop a Python NetworkX extension workflow, enabling prompt-based visualization graph generation with realistic and artistic visual effects
- Proposed and tested multi-noise level pipeline in diffusion model to maintain logical information

Tsinghua University · Fudan University

January 2022–Oct 2022

Social Computing Research Analysis

- Conducted a research bibliometric analysis on the social computing discipline with literature data from DBLP platform
- Designed and implemented systematic workflow for publication data filtering, information extraction and attributes labeling
- Deployed Graph network analysis, information visualization and structural hole theory to draw insights on the development of social computing research
- Submitted a research paper to an IEEE Journal, *Journal of Social Computing (JSC)*

Hong Kong University of Science and Technology

July 2021–February 2022

[Project Link] *Human Computer Interaction Research on Augmented Reality*

- Defined a new concept of creative AR prototype of shape-based art effects and devised its working principle
- Trained a CoreML CV model with >95% accuracy and applied it to build a handDraw-based AR generation iOS app for user investigation using Apple ARKit
- Implemented systematic classification for AR prototypes and used Reality Composer and Adobe Aero to improvise numerous prototypes for research study
- Conducted a study to evaluate and optimize the design space to obtain a HCI-oriented systematic workflow

Fudan University*November 2020–December 2020**NLP Analysis of Online Movie critique (Group Project)*

- Developed a network spider with Python Depth-First-Search to gather and pre-process 18K+ public online movie critics on Douban
- Applied LSTM to train an emotion prediction model for movie comments and verified accuracy by user study
- Applied Jieba module for text segmentation, implemented word embedding and de-noise to get concrete emotion wordset, and made thorough analysis of online film critics

Fudan University*August 2020–November 2020**Security of Mobile Applications*

- Analyzed application security on Android devices
- Used Java and Python to optimize application security analysis with a series of simulated hacking and defense mechanisms
- Utilized JEB and Jadx to enhance ease-of-use on several versions of Android device applications

INTERN EXPERIENCE**Research Intern, Tsinghua University · Fudan University***December 2020–June 2022**Big Data and Social System Development*

- Used JavaScript, Python, and Node.js to design and utilize multiple functionalities (file downloading, organization management, etc.) of a mobile application for social activity data processing
- Designed the operation framework for the connection and transportation between the front-end and back-end system, and optimized the compatibility and data transmission problems to alleviate data overloading, synchronous access, and inefficient compression problems
- Established publicly accessible system with a user-friendly social management and organization tool for social data analytics

SELECTED AWARDS

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| • Fudan University Outstanding Student in 2019–2020 | <i>Oct. 2020</i> |
| • Fudan University Outstanding Undergraduate Student Scholarship | <i>Oct. 2021</i> |
| • Fudan University Outstanding Undergraduate Student Scholarship | <i>Oct. 2020</i> |
| • Best Project Design Officer of Fudan University Student Union | <i>Dec. 2018</i> |

SKILLS AND OTHER**Programming:** Python, C/C++, JavaScript, ARKit, JEB/Jadx**Languages:** Chinese (Native), English (fluent; TOEFL iBT: 106 (speaking: 25), GRE: V-159 + Q-169 + AW- 4.0)**Art & Design:** Sketching, painting, video editing, storyboarding, photography, Nuke, Final Cut Pro, Premiere