

Kexue Fu

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EDUCATION

City University of Hong Kong, Hong Kong, SAR 2023 – 2027

Phd student in Human computer interaction

Chongqing University, Chongqing, China 2019 – 2023

BEng (Honors) in Industrial Engineering(focusing on intelligent construction) Minor in industrial design
(Enrolled in the honors program at my college which is for the top 5% of students)

Scholarship: 2nd-Class Scholarship (top15% Spring 2021) , 3rd-Class Scholarship (top25% Autumn 2021)

PUBLICATION

[C1] **Kexue Fu***, Yixin Chen*, Jiaxun Cao, Xin Tong and LC,RAY. "I Am a Mirror Dweller": Probing the Unique Strategies Users Take to Communicate in the Context of Mirrors in Social Virtual Reality. *CHI 2023*,Hamburg,Germany. [PDF]

RESEARCH EXPERIENCE

The influence of mirror in Social VR 06/2022-01/2023

Advisors: Prof. RayLC (School of Creative Media - CityU) and Prof. Xin Tong(Computational and design - DKU)

Accept by ACM SIGCHI2023 as co 1st authorship *Projet leader*

The study focuses on the impact of spatial elements like mirrors in Social VR on players' social behaviors, using mixed methods (quantitative research and qualitative research)

- Mainly responsible for VR experiment design using Unity.
- Co-designed semi-structured interviews and questionnaires.
- Responsible for and participated in the remote experimental (in VRchat) and recruitment of 25 participants.
- Participated in coding and analyzing of quantitative data qualitative data.

Automatic generation of architectural renderings based on machine learning 06/2020-10/2020

Advisor: Prof. LIU li (School of Big Data and Software Engineering - CQU)

The study focuses on using machine learning to generate architecture renderings automatically, solving the problem of cumbersome generation of effect drawings of architecture.

- Collected datasets of different styles of architectural images and trained CNN networks to generate images automatically.
- Compared and evaluated the generation effect of different neural networks(GAN, CGAN, PGGAN)with IS score.

INTERNSHIP EXPERIENCE

OPPO Human factors internship experience 11/2021-01/2022

Advisor: Prof. Jia Zhou (CQU)

- Conducted the quantitative experiment to investigate the effect of optical flow on people's balance (30 subjects were elderly).
- Performed information architecture grooming, prototyping, Jack human factors evaluation, and user testing to redesign the interface and appearance of the campus smart terminal.

PROJECTS

Experience in mathematical modeling competition 02/2021 and 02/2022

Team-based Meritorious winner(top7 % globally) - Mathematical Contest in Modeling MCM/ICM

- Based on given data, we developed mathematical model and conducted data analyse using algorithm(K-means, PCA, Casual Bayesian network etc.) to measure musical influence of different genres and artists and identify the occurrence of revolutionary and evolutionary.
- Through the analysis and processing of data, we build a quantitative trading strategy model based on neural network to make predictions and decisions to maximize profits and provide suggestions to a trader.

Data visualization of world happiness report

03/2022- 05/2022

- Explored Data from the World Happiness Reports from 2007-2018 for storytelling, presenting changes in the index over time in different geographical regions, and comparing data at the extremes as well as with real-life events.

Life-cycle carbon footprint retrieval system in construction industry based on knowledge graph

11/2021-12/2021

- Built a life-cycle carbon footprint retrieval QA system based on the Neo4j knowledge graph framework.

Low "Car" Bon (Smart city innovation proposal)

03/2022-07/2022

Selected for Summer Institute for China's Green Innovators (SICGI) hold by Apple and Tsinghua University

Report: <https://drive.google.com/file/d/1PkuZPlzVSeGTFTsw4VuWSwQvBJz0BuNT/view?usp=sharing>

Video <https://youtu.be/96MQJ8oKwCQ>

Proposal for coupled energy optimization and mitigation of urban heat island effect based on mobile transportation tool

- Participated in literature review and brainstorming to develop the conceptual design and functional point design.
- Participated in logic combing of path recommendation algorithm.
- Responsible for the video presentation of the project.

SKILLS

Programming: Web development(HTML,css, Java), MATLAB, Python, SPSS, Tableau, R, Unity(C#)

Design: Figma, Axure, Rhino, Revit, AutoCAD, Adobe (Id,Ps,Pr)

Quantitative Research Skills: Statistical data analysis, Task efficiency measurements, Control experiment design

Quatitative Research Skills: One-on-one interviews Focus group facilitation, Observations and field studies, Experience prototype evaluations

HONORS

Gary madson travel award (2500 dollars) 02/2023

Honorable Prize - Innovation Competition in Construction Engineering and Management 07/2022

National Third Prize - National College Students Energy Saving and Emission Reduction Contest 07/2021

Meritorious winner(top7% globally) - Mathematical Contest in Modeling MCM/ICM 04/2021

National Second Prize - National University Student Art Exhibition 04/2021

ACADEMIC SERVICE

Student volunteer: CHI PLAY 10/2023

Reviewer: ChineseCHI2023, CHI2024 10/2023