

# 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** *Project 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

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### 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.

### 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.

### 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

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**Programming:** Unity(C#), Python, LATEX, MATLAB, SPSS, Tableau, R

**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

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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

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**Student volunteer:** CHI PLAY

10/2023

**Reviewer:** ChineseCHI2023, CHI2024

10/2023