Xiaohang Tang

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Education

University of Liverpool, Liverpool, UK 09/2021 – 07/2023

B.Sc. in Computer Science, GPA: 4.0/4.0 (Y3) First Class (Honors) Expected

Xi'an Jiaotong-Liverpool University, Suzhou, China 08/2019 – 07/2021

B.Sc. in Information and Computing Science, GPA: 3.87/4.0 (Top 10% in Y1, Top 10% in Y2)

Research Experience

SaNDwich Lab 05/2022 – Present

HCI + PL + NLP | Research Intern | University of Notre Dame

Advisors: Toby Jia-Jun Li & Elena Glassman (co-advised from Harvard University)

- Proposed a novel human-AI collaboration system and investigated several research questions.
- Contributed to algorithm design and human-AI system development. Performed the offline system experiments.
- Participated in designing and developing the user study. Contributed to qualitative and quantitative data analyzes and paper writing.

NLP@Liv 10/2021 – Present

NLP | Research Assistant | University of Liverpool

Advisor: Danushka Bollegala

- Leaded a research on a novel dynamic wordembedding method that beats the SoTA approach.
- Proposed three tuple selection methods with two template generation methods for pre-trained language models to learn semantic change over time.
- Programmed codes and executed the experiments. Wrote the paper with coauthors.

X-CHI Lab 10/2020 – 08/2021

HCI + VR + Cybersickness | Research Assistant | Xi'an Jiaotong-Liverpool University

Advisors: Hai-Ning Liang & Diego Monteiro

- Researched the correlation between cybersickness and trajectory compression rate in Virtual Reality. Contributed to the experiment design, analyzing trajectory and user data. Programmed experiment project in Unity3D and executed the experiment. Trained a model with the data of the experiments using a feedforward neural network.
- Researched a technique of using trajectory compression rate to predict changes in cybersickness in virtual reality games. This technique provides an efficient, low-cost, and practical way to detect cybersickness for individual users in some situations. Wrote a patent for it.

HCI + VR + Accessibility + Gamification | Research Assistant | Xi'an Jiaotong-Liverpool University

Advisor: Hai-Ning Liang

- Contributed to developing and evaluating two VR games to facilitate empathy in people with non-myopia for those who suffer from myopia.
- Programmed experiment projects (games) in Unity3D. Contributed to the experiment and game design, analyzing user data, writing a part of the paper.

Computer Science & Artificial Intelligence Lab 06/2021 – 08/2021

NLP + QA | Research Assistant | Massachusetts Institute of Technology

Advisor: Hongyin Luo

- Built a QA model to answer reading comprehension questions about written passages.
- Trained and evaluated the model in SQuAD dataset. Achieved results with EM score of 68.45% and F1 score of 81.35%.

Selected Publications: My Google Scholar

Full Paper

[C.3] Simret Araya, Zheng Zhang, **Xiaohang Tang**, Yihao Meng, Elena Glassman, Toby Jia-Jun Li, in **CHI'23** [In Submission]

[C.2] **Xiaohang Tang**, Yi Zhou, Danushka Bollegala, in **EACL'23** [In Submission]

[C.1] Diego Monteiro, Hai-Ning Liang, **Xiaohang Tang**, Pourang Irani, "Using Trajectory Compression Rate to Predict Changes in Cybersickness in Virtual Reality Games," in **ISMAR'21**

[J.1] Jingjing Zhang, Mengjie Huang, Rui Yang, Yiqi Wang, **Xiaohang Tang**, Ji Han, Haining Liang, in **Artificial Intelligence for Engineering Design, Analysis and Manufacturing (Cambridge University Press)** [In Submission]

Extended Abstract

[EA.3] Xiang Li, **Xiaohang Tang**, Yuzheng Chen, in **ISS'22** [In Submission]

[EA.2] Xiang Li, Yuzheng Chen, **Xiaohang Tang**, in **ISS'22** [In Submission]

[EA.1] Xiang Li, **Xiaohang Tang**, Xin Tong, Rakesh Patibanda, Florian 'Floyd' Mueller, Hai-Ning Liang, "Myopic Bike and Say Hi: Games for Empathizing with The Myopic," in **CHI PLAY'21** [SGDC Finalist]

Patent

[PA.1] Diego Monteiro, Hai-Ning Liang, **Xiaohang Tang**, "A method, apparatus and storage medium for detecting user's cybersickness level in virtual environment," **[CN113283612A]**

Academic Service

Reviewer: **CHI Late-Breaking Work** (2022)

Student Volunteer: **ACM UbiComp** (2022), **ACM DIS** (2022), **IEEE AIVR** (2020)

Selected Awards

ACM SIGCHI Gary Marsden Travel Award '22 ($3500)

University Academic Achievement Award '20 at XJTLU ($750)

Skills

Programming Languages: Python, C/C++, C#, Java, R

Tools and Frameworks: LaTeX, PyTorch, Unity3D