Jingyi Zhang

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EDUCATIONAL BACKGROUND

University College London, London, UK *04/2023 – now*

PhD in Computer Science *Supervisor: Prof Anthony Steed*

University College London, London, UK *09/2021 – 09/2022*

MSc in Computer Graphics, Vision and Imaging *Distinction*

Modules: Machine Learning for Visual Computing, Image Processing, Computer Graphics, Machine Vision, Numerical Optimisation, Perception and Interfaces, Robot Vision and Navigation, Virtual Environment

University College London, London, UK *09/2018 – 06/2021*

BSc in Computer Science *First Class Honours*

RESEARCH AND PROJECT

Individual Project for MSc Dissertation *Score: **80*** *Supervisor: Prof Anthony Steed*

(Developed to a paper submitted to ISMAR 2023)

Title: Supporting Co-Presence in Virtual Environments by Actor Control of Multiple Avatars

- Developed an immersive interface that allows a single actor to select among several avatars to take over and segue into the ongoing animation. The system helps to enhance the plausibility of environments inhabited by non-interactive characters with a few actors required.
- Conducted user case studies to evaluate the system. The result shows that users experience the scene as if it were populated by more than one actor.

Individual Project for Year 3 BSc *Score: **74*** *Supervisor: Prof Delmiro Fernandez-Reyes*

Title: Removal of Artefacts in Digitised Medical Optical Microscopy

- Developed and evaluated an image processing algorithm (CycleGAN model) for artefact removal in microscopy images of thin blood smear using the color and area difference between cells and artifacts.

INTERNSHIP EXPERIENCE

University College London *10/2022 –12/2022*

Research Assistant **(Developed to a paper submitted to VRST 2023)**

- Conducted social VR experiments.
- Participants recruitment and poster making.

Tencent, Shenzhen, China *08/2021 –09/2021*

Intern

- Collaborated with senior researchers to produce demo of Volumetric video and motion capture technique.
- Responsible for writing group project plan and progress report.
- Wrote speech scripts and PPT for technology conference.
- Wrote an industry survey about metaverse techniques and companies.

Microsoft, Guangzhou, China *07/2020 – 08/2020*

Intern

- Developed a speech-to-speech translation software for conference use by calling Microsoft Azure Cognitive Service API, and released the tutorial in official account to promote the used technology (Neural Speech Service)
- Used MXchip and Raspberry Pi as the physical device, popularized the scientific applications of the Internet of Things, Microsoft Azure, Power BI through small projects such as Auto Voice Weather Forecast and Word Cloud, which was published on country's biggest video-sharing site.
- Wrote a tutorial about training a reinforcement learning agent with Azure Machine learning and its future applications.

PUBLICATIONS

- **J. Zhang**, K. Brandstatter and A. Steed, "**Supporting Co-Presence in Populated Virtual Environments by Actor Takeover of Animated Characters,**" in 2023 IEEE International Symposium on Mixed and Augmented Reality (ISMAR), Sydney, Australia, 2023 pp. 940-949, doi: 10.1109/ISMAR59233.2023.00110.
- Z. Lu, **J. Zhang**, K. Shapiro, N. Numan, S. Julier and A. Steed, "**Reviving the Euston Arch: A Mixed Reality Approach to Cultural Heritage Tours,**" 2023 IEEE International Symposium on Mixed and Augmented Reality Adjunct (ISMAR-Adjunct), Sydney, Australia, 2023, pp. 821-826, doi: 10.1109/ISMAR-Adjunct60411.2023.00181.
- B. J. Congdon, G. W. Park, **J. Zhang**, and A. Steed, "**Comparing Mixed Reality Agent Representations: Studies in the Lab and in the Wild,**" 29th ACM Symposium on Virtual Reality Software and Technology (VRST '23). Association for Computing Machinery, New York, NY, USA, 2023, Article 26, 1–11. doi: 10.1145/3611659.3615719