Dr. Taizhou Chen (陳泰舟)

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About me

My research interest lies in the intersection of Human-Computer Interaction and applied machine learning, in which I am currently focusing on investigating sensing technologies, leveraging deep learning algorithm. I also have researches experiences on VR/AR haptic feedback, tangible interface design, smart wearable devices, and multi-modal interface design. I have publications on top conference such as CHI and IEEE VR, and top journal such as IJHCS and TVCG.

Education

City Universiy of Hong Kong — HongKong, China
PhD in Creative Media, Supervisor: Dr. Kening Zhu, Co-supervisor: Prof. Hongbo Fu — *Sept. 2018 – Oct. 2022*

City Universiy of Hong Kong — HongKong, China
MA in Creative Media, GPA: 3.81/4.0, with Distinction — *Sept. 2016 – Oct. 2017*

Experience

City University of Hong Kong — HongKong, China
Research Assistant — *Aug. 2021 – Aug. 2022*

Huawei Technologies Co., Ltd. — Shenzhen, China
Research Engineer Intern — *Oct. 2020 – Apr.2021*

Tsinghua University — Beijing, China
Visiting Student — *Dec. 2019 – Apr. 2020*

City University of Hong Kong — HongKong, China
Research Assistant — *Jan. 2017 – Aug. 2018*

Publications

Upcoming — **Taizhou Chen**, Tianpei Li, Xingyu Yang, Kening Zhu. EFRing: Enabling Thumb-to-Index-Finger Microgesture Interaction through Electric Field Sensing using Single Smart Ring

MTA — **Taizhou Chen**, Kening Zhu, Ming Chieh Yang. Deep-learning-based unobtrusive handedness prediction for one-handed smartphone interaction. Multimed Tools Appl (2022). ISSN: 1573-7721 https://doi.org/10.1007/s11042-021-11844-6

IJHCS — **Taizhou Chen**, Lantian Xu, Kening Zhu. FritzBot: A Data-Driven Conversational Agent for Physical-Computing System Design, in International Journal of Human-Computer Studies, Volume 155, November 2021, ISSN: 1071-5819 https://doi.org/10.1016/j.ijhcs.2021.102699

TVCG / IEEE VR 2021 — **Taizhou Chen**, Lantian Xu, Xianshan Xu and Kening Zhu, GestOnHMD: Enabling Gesture-based Interaction on Low-cost VR Head-Mounted Display, in IEEE Transactions on Visualization and Computer Graphics, ISSN: 1941-0506, doi: 10.1109/TVCG.2021.3067689.

CHI Symposium 2020 — Zhiyi Rong, Ngo Fung Chan, **Taizhou Chen**, Kening Zhu. CodeRhythm: A Tangible Programming Toolkit for Visually Impaired Students. In Proceedings of Asian CHI Symposium 2020, ACM CHI 2020. Best Paper Award.

HCII 2020 — Arshad Nasser, **Taizhou Chen**, Can Liu, Kening Zhu, P. V. M. Rao. 2020. FingerTalkie: Designing A Low-cost Finger-worn Device for Interactive Audio Labeling of Tactile Diagrams. In Proceedings of International Conference on Human-Computer Interaction (HCI International) 2020. Springer, Cham.

HCII 2020 Zhiyi Rong, Ngo Fung Chan, **Taizhou Chen**, Kening Zhu. Toward Inclusive Learning: Designing and Evaluating Tangible Programming Blocks for Visually Impaired Students. In Proceedings of International Conference on Human-Computer Interaction (HCI International) 2020. Springer, Cham.

INTERACT 2019 **Taizhou Chen**, Yi-Shiun Wu, and Kening Zhu. DupRobo: Interactive Robotic Autocompletion of Physical Block-based Repetitive Structure. In Proceedings of the 17th IFIP TC.13 International Conference on Human-Computer Interaction (INTERACT 2019). Springer-Verlag, Berlin, Heidelberg, 19 pages.

IJHCS Kening Zhu, Simon Perrault, **Taizhou Chen**, Shaoyu Cai, Roshan Lalintha Peiris. A sense of ice and fire: Exploring thermal feedback with multiple thermoelectric-cooling elements on a smart ring. International Journal of Human-Computer Studies. Volume 130, 2019, Pages 234-247, ISSN 1071-5819, https://doi.org/10.1016/j.ijhcs.2019.07.003.

CHI 2019 Kening Zhu, **Taizhou Chen**, Feng Han, and Yi-Shiun Wu. 2019. HapTwist: Creating Interactive Haptic Proxies in Virtual Reality Using Low-cost Twistable Artefacts. In CHI Conference on Human Factors in Computing Systems Proceedings (CHI 2019), May 4–9, 2019, Glasgow, Scotland UK. ACM, New York, NY, USA, 13 pages. https://doi.org/10.1145/3290605.3300923.

VRST 2018 **Taizhou Chen**, Yi-Shiun Wu, and Kening Zhu. 2018. Investigating Different Modalities of Directional Cues for Multi-task Visual-Searching Scenario in Virtual Reality. In VRST 2018: 24th ACM Symposium on Virtual Reality Software and Technology (VRST '18), November 28 - December 1, 2018, Tokyo, Japan. ACM, New York, NY, USA, 6 pages. Acceptance Rate: 22%.

Extended Abstracts

CHI 2020 **Taizhou Chen**. 2020. Facilitating Physical-Computer System Design through Data-Driven Natural-Language Interaction. In Extended Abstracts of the 2020 CHI Conference on Human Factors in Computing Systems (CHI EA '20). Association for Computing Machinery, New York, NY, USA, 1–6.DOI:https://doi.org/10.1145/3334480.3381442.

SIGGRAPH Asia 2018 Kening Zhu, **Taizhou Chen**, Shaoyu Cai, Feng Han, and Yi-Shiun Wu. 2018. Demo - HapTwist: Creating Interactive Haptic Proxies in Virtual Reality Using Low-cost Twistable Artefacts. In Proceedings of SA '18 Virtual and Augmented Reality . ACM, New York, NY, USA, 2 pages.

SIGGRAPH Asia 2017 **Taizhou Chen**, Yi-Shiun Wu, Feng Han, Baochuan Yue, and Kening Zhu. 2017. DupRobo: an interactive robotic platform for phyiscal block-based autocompletion. In SIGGRAPH Asia 2017 Posters (SA '17). Association for Computing Machinery, New York, NY, USA, Article 19, 1–2. DOI:https://doi.org/10.1145/3145690.3145708.

SIGGRAPH Asia 2017 **Taizhou Chen**, Junyu Liu, Kening Zhu, and Tamas Waliczky. 2017. The golden guardian: multi-sensory immersive gaming through multi-sensory spatial cues. In SIGGRAPH Asia 2017 VR Showcase (SA '17). ACM, New York, NY, USA, Article 12, 2 pages. DOI: https://doi.org/10.1145/3139468.3139473. Acceptance rate: 25%.

Patents

2020 Kening Zhu, Feng Han, **Taizhou chen**, Yi-Shiun Wu, Systems and methods for creating haptic proxies for use in virtual reality. Patent No. US20200341538A1. Publication date: 29 Oct 2020.

Award

Geneva International Exhibition of Inventions 2022
Bronze medal

The Outstanding Academic Performance Award for Research Degree Students 2021
Academic year 2020 - 21, City University of Hong Kong

Research Tuition Scholarship 2020
Academic year 2020 - 21, City University of Hong Kong

The Outstanding Academic Performance Award for Research Degree Students 2019
Academic year 2018 - 19, City University of Hong Kong

Academic Services

Working Committee
ICACHI Blue Book for China Human-Computer Interaction Educational Development in 2022
***ICACHI 2022*中国人机交互发展蓝皮书工作委员会**

PC Member
IEEE AIVR 2020/2021

Reviewer
CHI 2019/2020/2021, SIGGRAPH 2022, SIGGRAPH Asia 2018/2020/2021, IEEE VR 2020/2021, MobileCHI 2020, ICMI 2020/2021, ISS 2020/2021, IUI 2020/2021/2022, SUI 2020, ISWC 2018

Teaching Experience

Teaching Assistant

SM1103A Introduction to Media Computing — 2018/19 Semester A, 2019/20 Semester A

Lecturer

CS4187 Computer Vision for Interactivity — 2018/19 Semester A, 2019/20 Semester A, 2020/21 Semester A

2022/09/19 updated