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教育与学术经历

斯图加特大学，德国 2022.08 至今

博士后，合作导师：Prof. Andreas Bulling & Prof. Syn Schmitt

北京大学，中国 2017.09 – 2022.07

博士，计算机软件与理论专业，导师：汪国平教授

北京理工大学，中国 2013.09 – 2017.07

本科，光电信息科学与工程专业

研究方向

本人的研究方向包括人机交互、虚拟现实、眼动追踪、以及以人为中心的人工智能算法设计。长期的研究目标是建立一个以用户为中心的智能交互系统，以用来对人类在日常生活中的各种行为，例如眼睛运动、身体运动，进行准确的建模。

荣誉奖励

- INTERACT 2023 最佳学生论文提名
- SimTech 博士后研究学者，2022
- 国家奖学金（前 2%），2021
- IEEE VR 2021 TVCG 最佳期刊论文提名（前 2%，国内首次）
- 国家留学基金委奖学金，2020
- 校长奖学金（前 2%），2020
- 廖凯原奖学金（前 5%），2019
- 领航奖学金（前 0.2%，7/3800），2017
- 国家奖学金（前 2%），2016
- 国家奖学金（前 2%），2014

科研项目

- 混合现实中复杂任务的眼动行为和视觉注意机制与眼动预测，国家自然科学基金面上项目（排名 3/9）

学术活动

论文审稿

- 期刊：IMWUT，TiiS，TMM，TVCG，IJHCI，MTAP, VR，BRM
- 会议：SIGGRAPH，CVPR，ICCV，ECCV，CHI，UIST，IEEE VR，ISMAR，ETRA

会议组织

- PETMEI 2024 程序委员会成员
- ETRA 2024 虚拟化主席（Virtualization Chair）
- MuC 2023 副主席（Associate Chair）
- iWOAR 2023 程序委员会成员

学术讲座

- 以用户为中心的人工智能，南京大学第 11 届诚耀青年学者论坛，2023.12
- 用户感知智能交互系统，北京大学计算机学院第五届青年论坛，2023.12
- 眼动、身体运动、与场景的协调性研究，北京理工大学第十届“特立论坛”，主持人：王国仁教授，2023.11
- 数字人姿态协调性研究，北京大学计算机学院就业学术讲座，2022.11
- 虚拟现实环境中用户视觉注意的分析与预测，东南大学，主持人：丁玎教授，2022.06
- 沉浸式虚拟现实环境中基于眼动和头动信息的用户任务识别，IEEE VR 2022，主持人：Kiyoshi Kiyokawa 教授，2022.03
- 任务驱动虚拟现实场景中的用户注视预测，GAMES Webinar 2021，主持人：杨旭波教授，2021.09
- 基于眼动头动协调性的注视预测模型，2019 国际 VR/AR 暨三维显示大会，主持人：徐枫教授，2019.06

教学经历

- 机器感知与学习，斯图加特大学，2022，讲师
- 计算机图形学，北京大学，2018，助教
- 基于图像和视频的三维重建，北京大学，2018 助教
- 编程基础，北京大学，2018，助教

发表文章

* 通讯作者 # 共同一作

1. Haodong Yan#, **Zhiming Hu#***, Syn Schmitt, Andreas Bulling. GazeMoDiff: Gaze-guided Diffusion Model for Stochastic Human Motion Prediction. Pacific Conference on Computer Graphics and Applications, 2024. (**CCF B**)
2. Guanhua Zhang, **Zhiming Hu***, Andreas Bulling. DisMouse: Disentangling Information from Mouse Movement Data via Diffusion Models. ACM Symposium on User Interface Software and Technology, 2024. (**CCF A**)
3. **Zhiming Hu***, Zheming Yin, Daniel Haeufle, Syn Schmitt, Andreas Bulling. HOIMotion: Forecasting Human Motion During Human-Object Interactions Using Egocentric 3D Object Bounding Boxes. IEEE Transactions on Visualization and Computer Graphics (ISMAR 2024 Journal-track), 2024. (**CCF A**)
4. **Zhiming Hu***, Syn Schmitt, Daniel Haeufle, Andreas Bulling. GazeMotion: Gaze-guided Human Motion Forecasting. Proceedings of the 2024 IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), 2024. (**CCF C, Oral**)
5. **Zhiming Hu***, Jiahui Xu, Syn Schmitt, Andreas Bulling. Eye-body Coordination during Daily Activities for Gaze Prediction from Full-body Poses. IEEE Transactions on Visualization and Computer Graphics, 2024. (**CCF A**)
6. Yao Wang, Yue Jiang, **Zhiming Hu**, Constantin Ruhdorfer, Mihai Bâce, Andreas Bulling. VisRecall++: Analysing and Predicting Visualisation Recallability from Gaze Behaviour. Proc. ACM on Human-Computer Interaction (PACM HCI), 8 (ETRA), 2024.
7. Mayar Elfares, Pascal Reisert, **Zhiming Hu**, Wenwu Tang, Ralf Küsters, Andreas Bulling. PrivatEyes: Appearance-based Gaze Estimation Using Federated Secure Multi-Party Computation. Proc. ACM on Human-Computer Interaction (PACM HCI), 8 (ETRA), 2024.

8. Guanhua Zhang, **Zhiming Hu***, Mihai Bâce, Andreas Bulling. Mouse2Vec: Learning Reusable Semantic Representations of Mouse Behaviour. ACM SIGCHI Conference on Human Factors in Computing Systems, 2024. (**CCF A**)
9. Yao Wang, Weitian Wang, Abdullah Abdelhafez, Mayar Elfares, **Zhiming Hu***, Mihai Bâce, Andreas Bulling. SalChartQA: Question-driven Saliency on Information Visualisations. ACM SIGCHI Conference on Human Factors in Computing Systems, 2024. (**CCF A**)
10. Chuhan Jiao, **Zhiming Hu***, Mihai Bâce, Andreas Bulling. SUPREYES: SUPer Resolution for EYES Using Implicit Neural Representation Learning. ACM Symposium on User Interface Software and Technology, 2023. (**CCF A**)
11. Guanhua Zhang, Matteo Bortoletto, **Zhiming Hu***, Lei Shi, Mihai Bâce, Andreas Bulling. Exploring Natural Language Processing Methods for Interactive Behaviour Modelling. Proc. IFIP TC13 Conference on Human-Computer Interaction, 2023.
Best Doctoral Student Paper Award Nominees
12. Mayar Elfares, **Zhiming Hu**, Pascal Reisert, Andreas Bulling, Ralf Küsters. Federated Learning for Appearance-based Gaze Estimation in the Wild. Annual Conference on Neural Information Processing Systems. PMLR, 2023.
13. **Zhiming Hu**, Andreas Bulling, Sheng Li, Guoping Wang. EHTask: Recognizing User Tasks from Eye and Head Movements in Immersive Virtual Reality. IEEE Transactions on Visualization and Computer Graphics, 2023, 29(4): 1992-2004. (**CCF A**)
14. Zehui Lin, Xiang Gu, Sheng Li, **Zhiming Hu**, Guoping Wang. Intentional Head-Motion Assisted Locomotion for Reducing Cybersickness. IEEE Transactions on Visualization and Computer Graphics, 2022, 29(8): 3458-3471. (**CCF A**)
15. **Zhiming Hu**, Sheng Li, Meng Gai. Research progress of user task prediction and algorithm analysis (in Chinese). Journal of Graphics, 2021, 42(3): 367-375.
16. **Zhiming Hu**. Eye Fixation Forecasting in Task-Oriented Virtual Reality. Proceedings of the 2021 IEEE Conference on Virtual Reality and 3D User Interfaces Abstracts and Workshops, 2021: 707-708.
17. **Zhiming Hu**, Andreas Bulling, Sheng Li, Guoping Wang. FixationNet: Forecasting Eye Fixations in Task-Oriented Virtual Environments. IEEE Transactions on Visualization and Computer Graphics (IEEE VR 2021 Journal-track), 2021, 27(5): 2681-2690. (**CCF A**)
TVCG Best Journal Award Nominees
18. **Zhiming Hu**. Gaze Analysis and Prediction in Virtual Reality. Proceedings of the 2020 IEEE Conference on Virtual Reality and 3D User Interfaces Abstracts and Workshops, 2020: 543-544.
19. **Zhiming Hu**, Sheng Li, Congyi Zhang, Kangrui Yi, Guoping Wang, Dinesh Manocha. DGaze: CNN-Based Gaze Prediction in Dynamic Scenes. IEEE Transactions on Visualization and Computer Graphics (IEEE VR 2020 Journal-track), 2020, 26(5): 1902-1911. (**CCF A**)
20. **Zhiming Hu**, Sheng Li, Meng Gai. Temporal continuity of visual attention for future gaze prediction in immersive virtual reality. Virtual Reality & Intelligent Hardware, 2020, 2(2): 142-152.
21. **Zhiming Hu**, Congyi Zhang, Sheng Li, Guoping Wang, Dinesh Manocha. SGaze: A Data-Driven Eye-Head Coordination Model for Realtime Gaze Prediction. IEEE Transactions on Visualization and Computer Graphics (IEEE VR 2019 Journal-track), 2019, 25(5): 2002-2010. (**CCF A**)