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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，计算机科学与理论专业，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

- ISMAR 2024 最佳期刊论文提名
- 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 最佳期刊论文提名（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

- ETRA 2025 展示与海报主席（Presentation and Poster Chair）
- AAAI 2025 程序委员会成员
- MuC 2024 副主席（Associate Chair）

- 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

- 人类日常行为中的眼动身体运动协调性以及基于身体运动的眼动预测, ISMAR 2024, 2024.10
- 注视引导的人体运动预测, IROS 2024 非语言的人机智能协作研讨会, 主持人: Joungh Yeong Chew 博士, 2024.10
- 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: 丁珩教授, 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, *Best Journal Paper Nominees*)
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. Pose2Gaze: Eye-body Coordina-

- tion 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 Băce, Andreas Bulling. Vis-Recall++: Analysing and Predicting Visualisation Recallability from Gaze Behaviour. Proc. ACM on Human-Computer Interaction (PACM HCI), 8 (ETRA), 2024. (CCF C)
  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. (CCF C)
  8. Guanhua Zhang, **Zhiming Hu\***, Mihai Băce, 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 Băce, 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 Băce, 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 Băce, Andreas Bulling. Exploring Natural Language Processing Methods for Interactive Behaviour Modelling. Proc. IFIP TC13 Conference on Human-Computer Interaction, 2023. (CCF C, *Best Student Paper 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, *Best Journal Paper 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)