NANDI ZHANG

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EDUCATION

University of Calgary Sept. 2023 - Aug. 2025
MSc in Computer Science (Thesis-based)
Specialization in Computational Neuroscience
Advisor: Professor Ryo Suzuki

Hong Kong University of Science and Technology Sept. 2018 - Aug. 2022
BSc in Data Science and Technology
Thesis Advisor: Professor Xiaojuan Ma

RESEARCH INTEREST

My main research area is **Human-Computer Interaction**, with a focus on **Mixed Reality** and **Human-Robot Interaction**. I investigate how computational systems shape human perception and behavior, developing technologies that enhance human capabilities through both system design and cognitive approaches.

PUBLICATION

[1] **Nandi Zhang**, Yukang Yan, and Ryo Suzuki. From Following to Understanding: Investigating the Role of Reflective Prompts in AR-Guided Tasks to Promote Task Understanding. (*Under revision for CHI'25*)

[2] Hanfang Lyu, Xiaoyu Wang, **Nandi Zhang**, Shuai Ma, Qian Zhu, Yuhan Luo, Fu-Gee Tsung, and Xiaojuan Ma. Signaling Human Intentions to Service Robots: Understanding the Use of Social Cues during In-Person Conversations. (*Under revision for CHI'25*)

[3] Aditya Gunturu, Shivesh Singh Jadon, **Nandi Zhang**, Morteza Faraji, Jarin Thundathil, Tafreed Ahmad, Wesley Willett, and Ryo Suzuki. RealitySummary: Exploring On-Demand Mixed Reality Text Summarization and Question Answering using Large Language Models. (*Under revision for CHI'25*)

[4] Aditya Gunturu, Yi Wen, **Nandi Zhang**, Jarin Thundathil, Rubaiat Habib Kazi, and Ryo Suzuki. Augmented Physics: A Machine Learning-Powered Tool for Creating Interactive Physics Simulations from Static Diagrams. *In Proceedings of the Annual ACM Symposium on User Interface Software and Technology.* 2024. (**UIST'24**)
Best Paper Award

[5] Peixuan Xiong, Yukai Zhang, **Nandi Zhang**, Shihan Fu, Xin Li, Yadan Zheng, Jinni Zhou, Xiquan Hu, and Mingming Fan. To Reach the Unreachable: Exploring the Potential of VR Hand Redirection for Upper Limb Rehabilitation. *In Proceedings of the CHI Conference on Human Factors in Computing Systems.* 2024. (**CHI'24**)

WORKING EXPERIENCE

SenseTime Group Inc. Jan 2021 - Jan 2022
Research Intern

Contributed to diverse machine learning projects, addressing neural collapse in transfer learning and developing a comprehensive vision model training framework. Explored few-shot distillation techniques

and implemented language models, including BERT and GPT-2. Pre-trained large-scale visio-linguistic models and worked on reinforcement learning systems like AlphaZero.

Creativity Lab, UCSD July 2022 - Nov 2022
Remote Intern

Designed and conducted data collection for a comprehensive multi-modal gesture database, capturing diverse modalities including head movements, hand signals, full-body gestures, etc. Developed a web interface enabling gesture designers to analyze modality availability patterns across different interaction scenarios.

TEACHING EXPERIENCE

DATA 201: Thinking with Data Fall 2023
Teaching Assistant

Instructor: Professor Nelson Wong
Department of Computer Science, University of Calgary

DATA 201: Thinking with Data Winter 2024 & Fall 2024
Head Teaching Assistant

Instructor: Professor Nelson Wong
Department of Computer Science, University of Calgary

SCIE 398: Communication for Computer Science Fall 2024
Course Development Assistant

Instructor: Professor Nelson Wong
Department of Computer Science, University of Calgary

SERVICE

Paper Review
CHI 2025
Student Volunteer
CHI 2024

EXTRACURRICULAR ACTIVITIES

HKUST Robotics Team Winter 2019 - Summer 2022
Hardware and Software Engineer

Designed and implemented a machine learning-based navigation algorithm for intelligent cars on the K60 microcontroller, and collected the data for training. Developed the car's mechanical structure from scratch, including design and construction. Designed and soldered custom PCB boards.

SKILLS

Programming Languages and Frameworks: Python (Proficient), C# (Proficient), Pytorch (Proficient), C++ (Proficient), R (Familiar), Java (Familiar), JavaScript (Familiar), SQL and NoSQL (Familiar)
Web Technologies: React (Familiar)
Software and Tools: Unity (Proficient), Tableau (Proficient), Qualtrics (Proficient), OpenRefine (Proficient), Matlab (Familiar)
Robotics: Arduino (Proficient), Fusion 360 (Familiar), Solidworks (Familiar), Eagle (Familiar)
Languages: English (Fluent), Mandarin (Native)