

Yunxiang Zhang

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RESEARCH INTERESTS

My current research revolves around virtual/augmented/mixed reality, human-computer interaction, and generative AI, with a focus on multimodal interface design and AI-assisted content creation for immersive applications. More broadly, I enjoy combining theoretical insights from physical, perceptual, and cognitive sciences with machine learning tools to solve challenging real-world problems.

EDUCATION

New York University <i>Doctor of Philosophy in Computer Science and Engineering</i> Advisor: Prof. Qi Sun	New York City, USA <i>Sep 2022 – Dec 2025 (expected)</i>
The Chinese University of Hong Kong <i>Master of Philosophy in Information Engineering</i> Thesis: Towards Physically Realistic Human-Environment Interaction in Virtual and Augmented Reality Advisor: Prof. Dahua Lin	Hong Kong SAR, China <i>Aug 2020 – Aug 2022</i>
Shanghai Jiao Tong University <i>Master of Engineering in Electronics and Communication Engineering</i> Thesis: Similarity-Based Approach to Neural Network Pruning Advisor: Prof. Bingbing Ni	Shanghai, China <i>Sep 2017 – Mar 2020</i>
École Polytechnique <i>Diplôme d'Ingénieur in Computer Science (double-degree program between SJTU and EP)</i>	Palaiseau, France <i>Apr 2016 – Aug 2018</i>
Shanghai Jiao Tong University <i>Bachelor of Engineering in Information Engineering</i>	Shanghai, China <i>Sep 2013 – Aug 2017</i>

RESEARCH EXPERIENCE

Research Intern, Intel Graphics Research <i>Mentors: Dr. Alexandr Kuznetsov and Dr. Akshay Jindal</i>	Bellevue, USA <i>May 2023 - Aug 2023</i>
Research Intern, Vector Institute <i>Mentor: Prof. Nicolas Papernot</i>	Toronto, Canada <i>Mar 2020 – Jun 2020</i>
Research Intern, LTCI Télécom Paris <i>Mentors: Prof. Samy Blusseau, Prof. Santiago Velasco-Forero, Prof. Isabelle Bloch, and Prof. Jesús Angulo</i>	Paris, France <i>Apr 2018 - Aug 2018</i>

PUBLICATIONS

- **Accelerating Saccadic Response through Spatial and Temporal Cross-Modal Misalignments**
ACM SIGGRAPH 2024 [Paper](#)
Daniel Jiménez Navarro, Xi Peng, **Yunxiang Zhang**, Karol Myszkowski, Hans-Peter Seidel, Qi Sun, Ana Serrano
- **Measuring and Predicting Multisensory Reaction Latency: A Probabilistic Model for Visual-Auditory Integration**
IEEE Transactions on Visualization and Computer Graphics (TVCG 2024)
Xi Peng, **Yunxiang Zhang**, Daniel Jiménez Navarro, Ana Serrano, Karol Myszkowski, Qi Sun
- **Mixed Reality Interface for Whole-Body Balancing and Manipulation of Humanoid Robot**
International Conference on Ubiquitous Robots (UR 2024)
Hyunjong Song, Gabriel Bronfman, **Yunxiang Zhang**, Qi Sun, Joo H. Kim
- **Toward Optimized VR/AR Ergonomics: Modeling and Predicting User Neck Muscle Contraction**
ACM SIGGRAPH 2023 [Paper](#)
Yunxiang Zhang, Kenneth Chen, Qi Sun
- **Force-Aware Interface via Electromyography for Natural VR/AR Interaction**
ACM Transactions on Graphics (SIGGRAPH Asia 2022) [Paper](#)
Yunxiang Zhang, Benjamin Liang, Boyuan Chen, Paul M. Torrens, S. Farokh Atashzar, Dahua Lin, Qi Sun
- **CaPC Learning: Confidential and Private Collaborative Learning**
International Conference on Learning Representations (ICLR 2021) [Paper](#)
Christopher A. Choquette-Choo*, Natalie Dullerud*, Adam Dziedzić*, **Yunxiang Zhang***, Somesh Jha, Nicolas Papernot, Xiao Wang

- **Exploiting Channel Similarity for Network Pruning**
IEEE Transactions on Circuits and Systems for Video Technology (TCSVT 2023) [Paper](#)
Chenglong Zhao, **Yunxiang Zhang**, Bingbing Ni
 - **Max-plus Operators Applied to Filter Selection and Model Pruning in Neural Networks**
International Symposium on Mathematical Morphology and Its Application to Signal and Image Processing (ISMM 2019) [Paper](#)
Yunxiang Zhang, Samy Blusseau, Santiago Velasco-Forero, Isabelle Bloch, Jesus Angulo
- * Equal contributions, authors ordered alphabetically

AWARDS

New York University	Deborah Rosenthal MD Award (2024)
New York University	SoE Fellowship (2022 – 2023)
The Chinese University of Hong Kong	Postgraduate Scholarship (2020 – 2022)
Shanghai Jiao Tong University	SPEIT Academic Excellence Scholarship (2015 – 2016)
Shanghai Jiao Tong University	Ardian Scholarship (2014 – 2015)

ACADEMIC SERVICES

Conference Reviewer: SIGGRAPH, SIGGRAPH Asia, TVCG, AAI, IEEE VR, ISMAR

TEACHING EXPERIENCE

Teaching Assistant, Virtual and Augmented Reality (CS-GY 9223), New York University	2022 Fall
Teaching Assistant, Final Year Project (IERG 4998/4999), The Chinese University of Hong Kong	2020 – 2022

SKILLS

- **Programming:** Python (primary), C#, C/C++
- **Tools:** PyTorch, TensorFlow, OpenGL, Libigl
- **Software:** Blender, Unity, Matlab, MeshLab
- **Language:** Mandarin, English, French