

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 Sep 2022 – Present
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 Aug 2020 – Aug 2022
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 Sep 2017 – Mar 2020
École Polytechnique <i>Diplôme d'Ingénieur in Computer Science (double-degree program between SJTU and EP)</i>	Palaiseau, France Apr 2016 – Aug 2018
Shanghai Jiao Tong University <i>Bachelor of Engineering in Information Engineering</i>	Shanghai, China Sep 2013 – Aug 2017

RESEARCH EXPERIENCE

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

PUBLICATIONS

- **Toward Predicting Reaction Latency under Visual-Auditory Integration: A Probabilistic Model and Its Applications**
In submission 2023
- **Toward User-Aware Interactive Virtual Agents: Generating Multi-Modal Human Behaviors**
In submission 2023
- **Toward Optimized VR/AR Ergonomics: Modeling and Predicting User Neck Muscle Contraction**
SIGGRAPH 2023 Conference Proceedings [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 Dziedzic*, 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	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, AAAI, IEEE VR, IEEE 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