

Yunxiang Zhang

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RESEARCH INTERESTS

My research interests are at the intersection of virtual/augmented reality, human-computer interaction, and computational photography/imaging. I enjoy combining theoretical insights from physical, biological, 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	Brooklyn, NY 11201, 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 91128, France Apr 2016 – Aug 2018
Shanghai Jiao Tong University <i>Bachelor of Engineering in Information Engineering</i>	Shanghai, China Sep 2013 – Aug 2017

EXPERIENCE

Research Intern, Vector Institute <i>Supervisor: Prof. Nicolas Papernot</i>	Toronto, ON M5G 1M1, Canada Mar 2020 – Jun 2020
Research Intern, LTCI Télécom Paris <i>Supervisor: Prof. Samy Blusseau, Prof. Santiago Velasco-Forero, Prof. Isabelle Bloch, and Prof. Jesús Angulo</i>	Paris 75013, France Apr 2018 - Aug 2018
Software Development Intern, SNCF <i>Supervisor: Loïc Hamelin</i>	Saint Denis 93200, France Jun 2017 - Sep 2017

PUBLICATIONS

- **Force-Aware Interface via Electromyography for Natural VR/AR Interaction.** Yunxiang Zhang, Benjamin Liang, Boyuan Chen, Paul M. Torrens, S. Farokh Atashzar, Dahua Lin, Qi Sun. ACM Transactions on Graphics (SIGGRAPH Asia 2022) [Paper](#)
 - **CaPC Learning: Confidential and Private Collaborative Learning.** Christopher A. Choquette-Choo*, Natalie Dullerud*, Adam Dziedzic*, Yunxiang Zhang*, Somesh Jha, Nicolas Papernot, Xiao Wang. International Conference on Learning Representations (ICLR 2021) [Paper](#)
 - **Exploiting Channel Similarity for Network Pruning.** Chenglong Zhao, Yunxiang Zhang, Bingbing Ni. IEEE Transactions on Circuits and Systems for Video Technology 2023 [Paper](#)
 - **Max-plus Operators Applied to Filter Selection and Model Pruning in Neural Networks.** Yunxiang Zhang, Samy Blusseau, Santiago Velasco-Forero, Isabelle Bloch, Jesus Angulo. International Symposium on Mathematical Morphology and Its Application to Signal and Image Processing (ISMM 2019) [Paper](#)
- * 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)

PROFESSIONAL SERVICES

Reviewer for AAAI 2021, IEEE ISMAR 2022, IEEE VR 2023

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:** C/C++, Python, C#, Java, CUDA, Matlab
- **Tools:** PyTorch, TensorFlow, Libigl, Eigen, Git, CMake, OpenMP
- **Software:** Blender, Unity, Photoshop, Premiere Pro, Illustrator, Matlab, Mathematica, MeshLab
- **Language:** Mandarin, English, French