# LUXIN ZHANG

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#### **EDUCATION**

Carnegie Mellon University

Aug. 2018 - Dec. 2019

Pittsburgh, PA

Master of Science in Computer Vision

The Robotics Institute, School of Computer Science

Peking University

Sept. 2014 - July 2018

Beijing, China

Bachelor of Science in Intelligence Science, School of EECS

#### RESEARCH KEYWORDS

Computer Vision, Generative AI, Video Generation, Diffusion Models, Foundation Models, Large-scale Pre-training & Post-training

#### **EMPLOYMENT**

Meta Feb. 2023 - Present

Generative AI, Senior Research Engineer

Menlo Park, CA

- Research: Media foundation models (Movie Gen, Emu, Emu-Video).
- Product: Deployment of the foundation models (Meta AI, Ads).

Meta Mar. 2020 - Feb. 2023

Reality Lab, Software Engineer

Cambridge, MA

- Research: Multitask learning with auxiliary signals for Ads recommendation.
- Product & Infra: AR contents recommendation on Instagram and VR/MR glasses.

Meta May 2019 - Aug. 2019

Core Infra, Software Engineering Intern

Cambridge, MA

• Product & Infra: Internal tool of Meta's deployment services.

Microsoft Research Asia

Research Engineer Intern

Sept. 2017 - Feb. 2018

Beijing, China

- Research: Machine learning for multilingual language understanding.
- Product & Infra: Developed LUIS, an open-source learning-based service for personalized language understanding.

### University of Texas at Austin

July 2017 - Sept. 2017

Research Assistant

Austin, TX

• Research: Imitation learning of human attention for visuomotor tasks.

### **PUBLICATION**

### • Movie Gen: A Cast of Media Foundation Models

Meta Technical Report, 2024.

Luxin Zhang as Core Contributor, The Movie Gen team

### • AVID: Any-Length Video Inpainting with Diffusion Model

Conference on Computer Vision and Pattern Recognition (CVPR), 2024.

Zhixing Zhang, Bichen Wu, Xiaoyan Wang, Yaqiao Luo, **Luxin Zhang**, Yinan Zhao, Peter Vajda, Dimitris Metaxas, Licheng Yu

## • Animated Stickers: Bringing Stickers to Life with Video Diffusion

arXiv Preprint, 2024.

David Yan, Winnie Zhang, **Luxin Zhang**, Anmol Kalia, Dingkang Wang, Ankit Ramchandani, Miao Liu, Albert Pumarola, Edgar Schoenfeld, Elliot Blanchard, Krishna Narni, Yaqiao Luo, Lawrence Chen, Guan Pang, Ali Thabet, Peter Vajda, Amy Bearman, Licheng Yu

### • Cloth Region Segmentation for Robust Grasp Selection

International Conference on Intelligent Robots and Systems (IROS), 2020. Jianing Qian, Thomas Weng, Luxin Zhang, Brian Okorn, David Held

### • Atari-HEAD: Atari Human Eye-Tracking and Demonstration Dataset

Proceedings of the AAAI Conference on Artificial Intelligence (AAAI), 2020.

Ruohan Zhang, Calen Walshe, Zhuode Liu, Lin Guan, Karl Muller, Jake Whritner, **Luxin Zhang**, Mary Hayhoe, Dana Ballard

### • Modelling Complex Perception-Action Choices

Journal of Vision, 2018.

Ruohan Zhang, Jake Whritner, Zhuode Liu, Luxin Zhang, Karl Muller, Mary Hayhoe, Dana Ballard

### • Learning Attention Model from Human for Visuomotor Tasks

Proceedings of the AAAI Conference on Artificial Intelligence (AAAI), 2018.

Luxin Zhang, Ruohan Zhang, Zhuode Liu, Mary Hayhoe, Dana Ballard

### • AGIL: Learning Attention from Human for Visuomotor Tasks

Proceedings of the European Conference on Computer Vision (ECCV), 2018.

Ruohan Zhang, Zhuode Liu, **Luxin Zhang**, Jake A Whritner, Karl S Muller, Mary M Hayhoe, Dana H Ballard

#### • Visual Attention Guided Deep Imitation Learning

NIPS Cognitively Informed Artificial Intelligence Workshop, 2017.

Ruohan Zhang, Zhuode Liu, Luxin Zhang, Karl S Muller Mary M Hayhoe, Dana H Ballard

#### ACADEMIC SERVICE

- NeurIPS 2022 Workshop: Medical Imaging Meets NeurIPS
- ICML 2022 Workshop: Interpretable Machine Learning in Healthcare
- MICCAI 2022 Workshop: Medical Optical Imaging and Virtual Microscopy Image Analysis
- ICCV 2021 Workshop: Computer Vision for Automated Medical Diagnosis
- ICML 2021 Workshop: Interpretable Machine Learning in Healthcare
- ICML 2021 Workshop: Self-Supervised Learning for Reasoning and Perception
- ICML 2021 Workshop: Computational Approaches to Mental Health
- IJCAI 2021 Workshop: Weakly Supervised Representation Learning
- IJCAI 2021 Workshop: Long-Tailed Distribution Learning
- 2021 IEEE/CIC International Conference on Communications in China (ICCC)
- 2021 IEEE International Conference on Microwaves, Antennas, Communications and Electronic Systems (COMCAS)

### **SKILLS**

- Programming: Python, C/C++, C#, MATLAB, SQL, PHP, JavaScript
- Platforms & Tools: PyTorch, Keras, TensorFlow, Linux, Git, LATEX