# JUNYI ZHANG

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### **EDUCATION**

Bachelor of Computer Science and Technology, Shanghai Jiao Tong University

2020 - 2024 (expected)

Member of Zhiyuan Honors Program (top 5%)

First two years GPA: 90.13/100 (rank 8/112)

#### SELECTED AWARDS

Microsoft Research "Stars of Tomorrow" Certificate (top 10% interns)

2022

Huawei Fellowship (top 1% in honors program)

National Scholarship (top 0.2% nationwide)

2021

Undergraduate Merit Scholarship, A Level, SJTU (top 1%)

## **EXPERIENCE**

Research Intern

# Microsoft Research Asia - Data Mining Group "AI for Design"

Jul 2022 - Dec 2022

Beijing, China

- Study the application of diffusion models in graphic design, especially the graphic layout generation.
- Developed discrete diffusion models specific to layout data, achieved state-of-the-art performance in unconditional and conditional generation tasks for several public layout datasets.
- Research submitted as first author to top CV conference, with potential for product implementation.

Shanghai Jiao Tong University - MVIG Lab "Unified Action Understanding" Undergraduate Research Intern

May 2022 - Present Shanghai, China

- Research on unifying multi-modal physical action spaces (2D, 3D, image, video, etc.) to a unified semantic space through the introduction of linguistic structure knowledge.
- Design and conduct experiments to extend our method on video datasets and verify the performance.

Shanghai Jiao Tong University - MVIG Lab "Human Action Knowledge Engine" Oct 2021 - May 2022 Undergraduate Research Intern

Shanghai, China

- Study on improving Human-Object Interaction (HOI) detection by incorporating human action knowledge.
- Conduct experiments to examine the effect of image depth and multi-person interactions on HOI detection.
- Research results were submitted as co-author in two papers, one of which was accepted by ECCV' 22.

#### **PUBLICATIONS**

Layout Diffusion: Improving Graphic Layout Generation by Discrete Diffusion Probabilistic Models. Junyi Zhang, Jiaqi Guo, Shizhao Sun, Jian-Guang Lou, Dongmei Zhang. *Under review*, 2022.

## Bridging The Isolated Islands in Human Action Understanding.

Yong-Lu Li\*, Xiaoqian Wu\*, Xinpeng Liu, Yiming Dou, Yikun Ji, **Junyi Zhang**, Yixing Li, Xudong Lu, Jingru Tan, Cewu Lu. *Under review*, 2022.

# Mining Cross-Person Cues for Body-Part Interactiveness Learning in HOI Detection.

Xiaoqian Wu\*, Yong-Lu Li\*, Xinpeng Liu, **Junyi Zhang**, Yuzhe Wu, Cewu Lu. ECCV, 2022.

### **SKILLS**

- Skills: Python (Pytorch), C/C++, LAT<sub>E</sub>X
- Languages: English (TOEFL 105/120, Academic writing), Chinese (Native speaker)