JUNYI ZHANG

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EDUCATION

Shanghai Jiao Tong University — Shanghai, China
Major in Computer Science and Technology; GPA: 3.88 (rank 8/112) — Sept. 2020 - Present

Zhiyuan College, Shanghai Jiao Tong University — Shanghai, China
Major in Zhiyuan Honors Program of Engineering (Top 5%) — Sept. 2020 - June 2024 (expected)

PUBLICATIONS

LayoutDiffusion: 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.

EXPERIENCE

Microsoft Research Asia - Data, Knowledge and Intelligence Group — *Beijing, China*
Research Intern — July 2022 - Dec. 2022

- **Diffusion Models for Layout Generation, AI for Design Project**
  - 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 - Machine Vision and Intelligence Group — *Shanghai, China*
Undergraduate Research Intern — Oct. 2021 - Present

- **Unified Human Action Understanding Project**
  - 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.
- **Human Action Knowledge Engine Project**
  - 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.

SELECTED AWARDS

Microsoft Research "Stars of Tomorrow" Certificate (Top 10% interns) — 2022
Huawei Fellowship (Top 1% in honors program) — 2022
National Scholarship (Top 0.2% nationwide) — 2021
Undergraduate Merit Scholarship, A Level, SJTU (Top 1%) — 2021

SKILLS

- **Skills:** Python (Pytorch), C/C++, LaTeX
- **Languages:** English (TOEFL 105/120), Chinese (Native)