

# Tiankai Hang

Jiulonghu Campus, Southeast University, Nanjing, P.R. China, 211189

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## RESEARCH INTEREST

Image & Video Synthesis; Efficient Training/Sampling of Generative Models; Building an Effective Visual Generation System.

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## EDUCATION

### Southeast University, Nanjing

*August 2020 - present*

Joint Ph.D with Microsoft Research Asia (MSRA).

Advisor: Prof. [Baining Guo](#) (Fellow of ACM, IEEE, and Canadian Academy of Engineering) and Prof. [Xin Geng](#) (Executive Vice Dean of Graduate School)

### Southeast University, Nanjing

*August 2016 - June 2020*

Bachelor of Automation. Advisor: Prof [Yangang Wang](#)

GPA: 4.025/4.8    Ranking: 3/99

### Jiangsu Jingjiang Senior Middle School

*August 2013 - July 2016*

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## WORK EXPERIENCE

### Microsoft Research Asia

*August 2022 - now*

Research Intern, Visual Computing Group  
Mentor: Shuyang Gu and Han Hu

### Microsoft Research Asia

*July 2020 - August 2022*

Research Intern, Multimedia Search and Mining Group  
Mentor: Kai Qiu, Huan Yang, and Jianlong Fu

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## PUBLICATIONS

(\* denotes equal first author)

- [1] Zhicong Tang\*, **Tiankai Hang\***, Shuyang Gu, Dong Chen, Baining Guo, Simplified Diffusion Schrödinger Bridge. *Under review*. [[Paper](#)][[Code](#)]
- [2] **Tiankai Hang**, Shuyang Gu, Dong Chen, Xin Geng, Baining Guo, CCA: Collaborative Competitive Agents for Image Editing. *Under review*. [[Paper](#)][[Code](#)]
- [3] Zigang Geng\*, Binxin Yang\*, **Tiankai Hang\***, Chen Li\*, Shuyang Gu, Ting Zhang, Jianmin Bao, Zheng Zhang, Han Hu, Dong Chen, Baining Guo, InstructDiffusion: A Generalist Modeling Interface for Vision Tasks. *CVPR 2024*. [[Paper](#)][[Code](#)]
- [4] **Tiankai Hang**, Shuyang Gu, Chen Li, Jianmin Bao, Dong Chen, Han Hu, Xin Geng, Baining Guo, Efficient Diffusion Training via Min-SNR Weighting Strategy. *ICCV 2023*. [[Paper](#)][[Code](#)]  
*Integrated into 🧡Diffusers, k-diffusion, adopted by AIGC Startups Stability.AI and Deci.AI.*
- [5] **Tiankai Hang**, Huan Yang, Bei Liu, Jianlong Fu, Xin Geng, Baining Guo, Language-Guided Face Animation by Recurrent StyleGAN-based Generator. *TMM 2023*. [[Paper](#)][[Code](#)]
- [6] Hongwei Xue\*, **Tiankai Hang\***, Yanhong Zeng\*, Yuchong Sun\*, Bei Liu, Huan Yang, Jianlong Fu, and Baining Guo, Advancing High-Resolution Video-Language Representation with Large-Scale Video Transcriptions. *CVPR 2022*. [[Paper](#)][[Code](#)]

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## HONORS & AWARDS

## Student Award

- First-class Academic Scholarship, 2023.
- Outstanding Graduates of Southeast University, 2020.
- Meritorious Winner of Interdisciplinary Contest In Modeling, 2019.
- 1st Prize The Chinese Mathematics Competitions (CMC), 2018.
- 1st Prize in Annual Advanced Mathematics Competition at Southeast University, 2016 (Ranked 2<sup>nd</sup>) & 2017 & 2018 (*Ranked 1<sup>st</sup> among all undergraduates.*).
- Merit Student 2017, 2018 (Southeast University)
- HELLA Scholarship 2018 (Southeast University Education Foundation, *Only 10 undergraduates*)
- National Scholarship 2017 (China, Top 0.2%)
- 1st Prize Chinese Mathematical Olympiad in Provinces 2015 (Jiangsu Province, top 0.1%)

## TECHNICAL STRENGTHS

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<b>Languages</b>	Python, Matlab, HTML
<b>Software &amp; Tools</b>	PyTorch, Docker, L <sup>A</sup> T <sub>E</sub> X