Sunqi Fan

Academic Website stephensunqifan@gmail.com

EDUCATION

Tsinghua University **Beijing, China**
Ph.D. *Sept 2025 – June 2030(expected)*

Deparment of Computer Science and Technology
- Research Interests: Computer Vision, Visual Agents
- Advisor: Prof. Shi-Min Hu

Tsinghua University **Beijing, China**
B.Eng. *Sept 2021 – June 2025*

Deparment of Computer Science and Technology
- Major in Computer Science
- Cumulative GPA: **3.88/4.0**

PUBLICATIONS & PREPRINTS

1. **Agentic Keyframe Search for Video Question Answering**
   Sunqi Fan, Meng-Hao Guo, Shuojin Yang
   Preprint [arXiv] [code]

2. **FlexKBQA: A Flexible LLM-Powered Framework for Few-Shot Knowledge Base Question Answering**
   Zhenyu Li*, **Sunqi Fan***, Yu Gu, Xiuxing Li, Zhichao Duan, Bowen Dong, Ning Liu, Jianyong Wang
   AAAI 2024 Oral Presentation [arXiv] [code]

3. **FAAC: Facial Animation Generation with Anchor Frame and Conditional Control for Superior Fidelity and Editability**
   Linze Li, **Sunqi Fan**, Hengjun Pu, Zhaodong Bing, Yao Tang, Tianzhu Ye, Tong Yang, Liangyu Chen, Jiajun Liang
   Preprint [arXiv] [code]

4. **Optimization Techniques for Unsupervised Complex Table Reasoning via Self-Training Framework**
   Zhenyu Li, Xiuxing Li, **Sunqi Fan**, Jianyong Wang
   IEEE Transactions on Knowledge and Data Engineering [arXiv] [code]

INDUSTRY EXPERIENCES

AIGC Group, Megvii Research **Beijing, China**
Work closely with Jiajun Liang *May 2023 – March 2024*

Using diffusion models to generate or edit contents
- Design algorithms for high-fidelity facial animation generation based on the text-to-image model. Capturing the rich and delicate expressions of faces is the main focus of this project.

PROJECTS

A Survey of Video Generation with diffusion Models (in Chinese) *2023*
- Published on the **Communications of Megvii Research** [pdf and demo]

Slides on interested topics shared in paper reading group *2022-2023*
- Motion Decomposition in Video Generation [Slides]
- Motion Prediction in Human-Object-Interaction [Slides]

A Real-Time Ray-Tracing System *2023*
- course project for Computer Graphic, graded 100.[code and doc]

AssetMasterHub: a corporate asset management website *2023*
- course project for Software Engineering, graded 94.[doc(in Chinese)][code(frontend)][code(backend)]

AWARDS & HORNORS

Comprehensive Merit Scholarship, Tsinghua University *2021,2022*
- Awarded for top 10% students in college

Academic Distinction Award, Oxford University *2022*
- Awarded for ranking top 1 in Oxford Study Abroad Programme: Artificial Intelligence and Machine Learning

Outstanding Member of Student Science Association, Tsinghua University *2022*
- Awarded for my work as the Vice President of the Student Science Association at Xinya College

Scholarship for Freshmen, Tsinghua University *2020*
- Awarded for ranking top 5 among 300,000 students in the National College Entrance Examination

TECHNICAL SKILLS

- Programming Language: Python (PyTorch, Numpy, Pandas, Matplotlib, scikit-learn), C/C++, R, HTML/CSS/JavaScript, Verilog/System verilog/VHDL
- develop tool: Docker, git, CMake, wandb, tensorboard, AllenNLP, Meshlab, Blender, Qt, Django

LANGUAGE

- Native in Mandarin; Fluent in English
- GRE 332 (Verbal 163, Quantitative 169, Analytical Writing 3.5)
- TOEFL 104 (Reading 29, Listening 28, Speaking 24, Writing 23)