Yiqi LIANG

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🔗 yiki77.github.io

Education

The Hong Kong University of Science and Technology   *Guangzhou, China*
MPhil in Computational Media and Arts, Information Hub   *Sep. 2023 - Oct. 2025*

- **GPA**: 3.94/4.30
- *Supervisor*: *Prof. Mingming Fan* ↗ (Primary) and *Prof. Yuyu Luo* ↗ (Co)
- **Thesis Topic**: Enabling Co-Creative Visual Storytelling for Older Adults with Generative AI

Northeastern University   *Hebei, China*
B.Eng in Computer Science and Technology   *Sep. 2018 - Jul. 2022*

- **GPA**: 89.4/100 (Ranking Top 7.8%)
- **Thesis Topic**: Text-guided Image Generation and ManipulationBased on Generative Adversarial Networks

Research Interest

Computer Vision, Generative AI, Human-Computer Interaction, Human-AI Collaboration, Assistive Technology, etc.

Publications and Manuscripts

In progress

- [P1] **Yiqi Liang**, Fan Lin, Qianjie Wei, Mingming Fan. StoryMosaic: Exploring the Potential of Generative AI to Facilitate the Preparatory Phase of Visual Storytelling for Older Adults. *(CHI). 2026.*   **Submitted**

Published

- [J1] Fan Lin, **Yiqi Liang**, Qianjie Wei, Mingshuo Li, Chutian Jiang and Mingming Fan. VR-Shuttlecock: Exploring the Possibility of Virtual Reality (VR) Shuttlecock Kicking with Multi-Sensory Feedback for Empowering Older Adults in Balance Training.*Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies (IMWUT). 2025.*   **Accepted with minor**

- [C1] Qianjie Wei, Xiaoying Wei, **Yiqi Liang**, Nuonan Si and Mingming Fan. RemoteChess: Enhancing Older Adults' Social Connectedness via Designing a Virtual Reality Chinese Chess (Xiangqi) Community. ↗ *Proceedings of the CHI Conference on Human Factors in Computing Systems (CHI). 2025.*   **Accepted**

- [C2] **Yiqi Liang**, Ying Liu, Dandan Long and Ruihui Li. MROSS: Multi-Round Region-based Optimization for Scene Sketching. ↗ *IEEE International Conference on Multimedia and Expo (ICME). 2025.*   **Accepted**

- [C3] Junxian Chen#, Ying Liu#, **Yiqi Liang**, Dandan Long and Ruihui Li. SD-Net: Spatially-Disentangled Point Cloud Completion Network. ↗ *Proceedings of the 31th ACM International Conference on Multimedia (ACM MM). 2023.*   **Accepted**

SELECTED PROJECTS

Research Student   *Sep. 2023 - present*
Accessible & Pervasive User EXperience (APEX ↗) Group, HKUSTGZ, Supervised by Prof. Mingming Fan ↗

- **Enabling Co-Creative Visual Storytelling for Older Adults with Generative AI**

  - Investigated the challenges and needs of older adults when engaging in visual storytelling.

- Designed, implemented, and evaluate a system combined with generative AI to assist older adults in generating and compositing the visual materials they need to better tell their stories.

- **From Scenarios to Strategies: A Systematic Framework for Understanding Spatial Information Needs of Blind and Low Vision people**

    - Investigated prior works and practices regarding the spatial information needs of blind and low vision (BLV) people in specific scenarios, such as navigation.
    - Designed a framework to systematically capture the spatial information needs of BLV people, aims to reveal neglected spatial information needs, identify new research directions, and guide design improvements of assistive tools.

- **LayerTouch: Layer-Based Image Exploration for Blind and Low Vision Users**

    - Designed and developed LayerTouch, an accessible image exploration tool that enables blind and low vision (BLV) users to interact with layered visual content on touchscreens.
    - The tool allows users to navigate image objects by depth, providing structured access to foreground and background elements, enhancing image understanding and grants users a stronger sense of agency.

- **Assisting Medication Information Leaflets Reading for Older Adults: Current Challenges and the Explorations of MediSUM**

    - Investigated the practices and challenges faced by Chinese older adults in reading medication leaflets.
    - Designed and implemented a WeChat Mini Program with AI-assisted functions to assist older adults in reading and understanding medication leaflets, improving medication safety.

Research Assistant   *Sep. 2022 - Aug. 2023*
ShapeLab, Hunan University, Supervised by Prof. Ruihui Li ↗

- **Multi-Round Region-based Optimization for Scene Sketching**

    - Developed a multi-round optimization mechanism to seamlessly integrate the sketch strokes of different regions to generate a scene sketch.
    - Proposed an additional stroke initialization method to ensure the completeness of the scene and the convergence of the optimization.

- **Adcanced Stylized Vector Graphics Synthesis**

    - Developed a system for advanced stylized vector graphics synthesis based on untrained optimization.
    - The project focuses on producing customizable vector illustrations with diverse artistic styles, enabling applications in digital art, design, and creative content generation.

Awards and Honors

2018/2019/2020/2021 Outstanding Student Scholarship of Northeastern University	*2018 - 2022*
Outstanding Graduates Prize of Northeastern University	*2022*
Best Code Award (2/269, 0.74%), HUAWEI Cloud BlockChain College Competition	*2021*
First prize (5%), The 14th Hebei Province Programming Contest	*2021*

Skills & Languages

Languages Proficiency: Mandarin (Native), English (Fluent, IELTS 6.5)
Programming Languages: Python, C++, C, C#, SQL, JavaScript, p5.js, HTML/CSS,
Technologies & Tools: Image Generation (Diffusion, GANs), 3D-aware representations (e.g. Gaussian distribution maps, NeRF), Large Language Models (GPT, BERT, LLaMA), VR/AR/XR.
Open-source Hardware and Programming: Arduino IDE, OpenMV
Others: Skilled in Figma, Adobe kits Adobe Kit (Photoshop, Illustrator)