WEICHEN FAN

✉ fanweichen2383@gmail.com

📍 Singapore 📞(65)86953799

EDUCATION

National University of Singapore, Singapore *Aug 2021 - Aug 2022*
Master of Electrical and Computer Engineering CAP:3.75/5.0

University of Electronic Science and Technology of China, China *Sep 2017 - June 2021*
Bachelor of Electrical and Computer Engineering GPA:3.65/4.0

WORK EXPERIENCE

HyperGAI
Research Scientist *Oct 2023 - Present*
- Conducting research on long video generation and build a video-framework that can support 1M context length (1-minute videos).
- Conducting research on personalized image generation, turning research into products **[Hyperbooth]**.

Sensetime
Computer Vision Researcher *July 2022 - Sep 2023*
- Conducting research on multimodal large language models(MLLMs).
- Conducting research on AI for Assembly Sequence Planning(ASP).
- Created a generic Sim2Real data engine that can be used for autonomous driving, gaming, and healthcare.
- Participating in research of SLAM especially in VO and 3D reconstruction.
- Collaborating with S-Lab@NTU, etc.

Research Intern *May 2021 - July 2022*
- Participating in research of Transfer Learning algorithm especially in Domain Adaptation and Domain Generalization.
- Conducting research on out-of-distribution(OOD) detection.

RESEARCH EXPERIENCE

Lab Ren, National University of Singapore
Research Assistant *Aug 2020 - Aug 2022*
- Conducting research on visual based autonomous control for surgical robots. Paper published at **IEEE T-ASE**.
- Co-developed a minimally invasive surgical robot for gastrointestinal endoscopy.

PUBLICATIONS

[1]. H. Gao*, **Fan, W.***, L. Qiu, X. Yang, Z. Li, X. Zuo, Y. Li, H. Ren, "SAVAnet: Surgical action-driven visual attention network for autonomous endoscope control", IEEE Transactions on Automation Science & Engineering (**T-ASE**), 2022. **[paper link]**

[2]. Yan Tai*, **Fan, W.***, Z. Zhang, Ziwei Liu. (2023). Link-Context Learning in Multimodal LLMs. **CVPR 2024**. **[paper link]**

[3]. **Fan, W.***, Chen, J*., Ziwei Liu. (2023). Hierarchy Flow For High-Fidelity Image-to-Image Translation. In Proceedings of **TPAMI**. **[paper link]**

[4]. **Fan, W.**, Chen, J., Ma, J., Hou, J., & Yi, S. (2022). StyleFlow For Content-Fixed Image to Image Translation. arXiv preprint arXiv:2207.01909.

[5]. **Fan, W.**, Yang, Y., Qiu, K., Wang, S., & Guo, Y. (2022). InvNorm: Domain Generalization for Object Detection in Gastrointestinal Endoscopy. arXiv preprint arXiv:2205.02842.

AWARD

- **Silver Award in EMEDIC GLOBAL 2021** — 2021
- **Best presentation in EMEDIC GLOBAL 2021** — 2021
- **Robomaster Robotics Competition** - First Prize (10/173 worldwide) — 2020
- **Robocon Robotics Competition** - First Prize — 2020
- **Robomaster Robotics Competition** - First Prize (3/173 worldwide) — 2019