FA-TING HONG

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INTRODUCTION

I am a second-year Ph.D. student in Computer Science at the Hong Kong University of Science and Technology (HKUST). My primary research interests lie in the areas of image and video generation, with a particular focus on talking head generation. I am passionate about developing cutting-edge algorithms and models that improve the quality, realism, and generalization of synthesized facial animations. My work aims to enhance the capabilities of deep learning models to generate high-fidelity and temporally coherent talking head videos. By contributing to advancements in these fields, I hope to make a significant impact on applications such as teleconferencing, virtual reality, filmmaking, and the gaming industry.

EDUCATION

Hong Kong University of Science and Technology *Aug. 2021 - Jul. 2025(Expected)*

- Supervisor: Prof. Dan XU

Sun Yat-sen University *Aug. 2018 - Jul. 2021*

- M.Sc. in Computer Science and Technology
- Supervisor: Prof. Wei-Shi Zheng

South China University of Technology *Aug. 2014 - Jul. 2018*

- B.Sc in Computer Science and Technology
- Supervisor: Prof. Sheng Bi

EXPERIENCE

Applied Research Center (ARC), PCG, Tencent *May. 2020 - Jun. 2021*

- Research Intern, Temporal Action Localization
- Supervisor: Dr. Ying Shan

PUBLICATIONS

- **Fa-Ting Hong**, Yunfei Liu, Yu Li, Changyin Zhou, Fei Yu, Dan Xu" DreamHead: Learning Spatial-Temporal Correspondence via Hierarchical Diffusion for Audio-driven Talking Head Synthesis", ***Under review*** 2024.
- **Fa-Ting Hong**, and Dan Xu, "Learning Online Scale Transformation for Talking Head Video Generation", ***Under review*** 2023.
- Jia-Run Du, Jia-Chang Feng, Kun-Yu Lin, **Fa-Ting Hong**, Xiao-Ming Wu, Zhongang Qi, Ying Shan, Wei-Shi Zheng "Weakly-Supervised Temporal Action Localization by Progressive Complementary Learning", ***arXiv*** 2023.
- **Fa-Ting Hong**, Li Shen, and Dan Xu, " DaGAN++: Depth-Aware Generative Adversarial Network for Talking Head Video Generation", ***TPAMI (Regular Paper)***, ***Accepted*** 2023.
- **Fa-Ting Hong**, and Dan Xu, "Implicit Identity Representation Conditioned Memory Compensation Network for Talking Head video Generation", ***ICCV*** 2023.
- Yu-Kun Qiu, **Fa-Ting Hong**, Wei-Hong Li, and Wei-Shi Zheng, "Learning Relation Models to Detect Important People in Still Images", ***TMM*** 2022.

- **Fa-Ting Hong**, Longhao Zhang, Li Shen, and Dan Xu, "Depth-Aware Generative Adversarial Network for Talking Head Video Generation", ***CVPR*** 2022.
- **Fa-Ting Hong**, Jia-Chang Feng, Dan Xu, Ying Shan, and Wei-Shi Zheng, "Cross-modal Consensus Network for Weakly Supervised Temporal Action Localization", ***ACM MM*** 2021, Chengdu, China.
- **Fa-Ting Hong**, Xuan-Teng Huang, Wei-Hong Li and Wei-Shi Zheng, "MINI-Net: Multiple Instance Ranking Network for Video Highlight Detection", ***ECCV*** 2020, Glasgow, UK.
- **Fa-Ting Hong***, Wei-Hong Li*, and Wei-Shi Zheng, "Learning to Detect Important People in Unlabelled Images for Semi-supervised Important People Detection", ***CVPR*** 2020, Seattle, USA.
- Wei-Hong Li*, **Fa-Ting Hong***, and Wei-Shi Zheng, "Learning to Learn Relation for Important People Detection in Still Images",***CVPR*** 2019, Long Beach, USA. (***Equal first author**)
- Jia-Chang Feng, **Fa-Ting Hong**, and Wei-Shi Zheng, "MIST: Multiple Instance Self-Training Framework for Video Anomaly Detection", ***CVPR*** 2021, Vitual, USA.
- Ling-An Zeng, **Fa-Ting Hong**, Wei-Shi Zheng, Qi-Zhi Yu, Wei Zeng, Yao-Wei Wang, and Jian-Huang Lai, "Hybrid Dynamic-static Context-aware Attention Network for Action Assessment in Long Videos", ***ACM MM*** 2020, Seattle, USA.
- Yuhong Liang, **Fa-Ting, Hong**, Qinjie Lin, Sheng Bi, and Liqian Feng, "Optimization of Robot Path Planning Parameters Based on Genetic Algorithm", in IEEE International Conference on Real-time Computing and Robotics (***RCAR***) 2017, Okinawa, Japan.

AWARDS

- Chinese Graduate Student National Scholarship, by Minister of Education of China, 2020
- Chinese National Scholarship (1/80), by Minister of Education of China, 2017

PROJECT

National Innovation and Entrepreneurship Project *2016 - 2018*

- Title: Research on Robot Autonomous Navigation Based on Lidar
- Role: Team leader
- Duties included: Mainly conducted research on the local path planning of the robot, which makes the robot avoid obstacles, and walk more smoothly in different environments. In particular, we use genetic algorithms to search an optimal parameter set, enabling the robot to act with ideal behaviors in a specific environment.
- Project Acceptance Evaluation: Excellent.

SKILLS

- **Program Languages:** most experienced with Python; experienced with C++; LaTeX
- **Operating Systems:** Linux (Ubuntu, CentOS), Windows, MacOS
- **Development Platforms and Softwares:** Pytorch
- **Miscellaneous:** software configuration management, strong verbal and written communication skills, excellent troubleshooting and debugging skills
- **Languages:** Mandarin(native), Cantonese(fluent), English(fluent)

MORE DETAILS

For more information, please visit my personal page at: https://harlanhong.github.io.