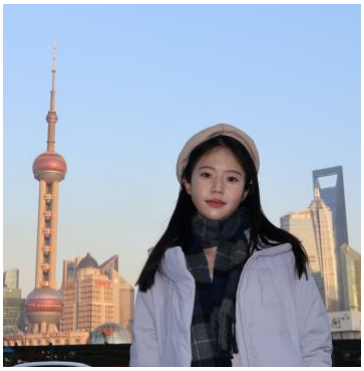

Ailin Huang

Undergraduate in major of Computer Science and Technology, Wuhan University 2019 – 2023

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WORK EXPERIENCE

2021.01 ~ Present — Megvii Research AIC team | Researcher (intern) | Mentor：Shuchang Zhou

Full-time intern for 26 months. Research Fields: Frame Interpolation, Neural Rendering, CLIP, 3D human, TalkingHead and RL for Autonomous Driving Decision Making. Accumulate experience in model training and paper writing.

2021.03 ~ 2021.06 — BUAA×Megvii Deep Learning Course | Development Teaching Assistant | Teacher：Jingyuan Wang

Write code and tutorials in MegEngine as coursework, including Distillation, Adversarial sample generation, white-box attack, ISP, Reinforcement Learning (DQN 2048-AI, Sudoku-AI, Multi-Agent AI). Online Course

PROJECT EXPERIENCE

2022.11 - Participate in ongoing autonomous driving competition and is responsible for decision-making using reinforcement learning, including lane-changing decisions and drive-length decisions.

2022.06 MegTech Open Day 2022：Exhibited the hand-painted characters to animation algorithm. The algorithm uses multiple hand-drawn character images and action sequences to generate character animation videos. Responsible for demo production and display。GitHub Repo

2021.12 Implement RIFE and optimize StyleCLIP / HyperStyle algorithm for text-guided face editing.
Make a pipeline for text-guided facial expression editing, available in WeChat mini Program MegLab。
RIFE is used to fuse the original and generated image to increase the similarity before and after face editing.
GitHub Repo of RIFE Inplementation GitHub Repo of face editing: Oh-My-Face

RESEARCH EXPERIENCE

2022 Detachable Intermediate Flow Estimation for Space-Time Video Super-Resolution (Submitted to CVPR2023)

Zhewei Huang, **Ailin Huang**, Xiaotao Hu, Shuchang Zhou

Temporal and spatial extension using optical flow, i.e. video frame interpolation and super-resolution.
We propose a simple yet efficient structure and ablate individual components to evaluate its effectiveness, and we achieve SOTA performance on several public benchmarks. we focus on the key component to construct advanced flow-based feature propagation.

2022 A Dynamic Multi-scale Voxel Flow Network for Video Prediction (Submitted to CVPR2023)

Xiaotao Hu, Zhewei Huang, **Ailin Huang**, Shuchang Zhou

Predict the next frame of the video. We propose a Multi-scale Voxel Flow Block to enable our model to handle motions of different scales to enhance our model generalization performance. At inference time, DMVFN adaptively selects appropriate sub-networks based on the input to speed up inference time and keep the performance of the model comparable.

2022 Perceptual Conversational Head Generation with Regularized Driver and Enhanced Renderer Paper | GitHub

Ailin Huang*, Zhewei Huang*, Shuchang Zhou * Equal Contribution

Rank 1 solution for ACM Multimedia* 2022 Conversational Head Generation Challenge (**Paper Published**)

We trained a high-quality audio-driven head renderer to generate vivid talking head or listening head video.
We tweak the baseline, used a foreground-background fusion module for video post-process, and explored several ensembling learning method.

AWARDS

2022	ACM MM2022 Conversational Head Generation Challenge | Rank1 for Track2, Rank2 for Track1
2020 – 2021	Silver Medal of ICPC2020 Nanjing, Silver Medal of ICPC2021 Yinchuan, Silver Medal of CCPC2020 Weihai
2020	1st Place in the Preliminary Round of Megvii AI Open Source Contest (Participated when not employed)
2018	Provincial First Prize of National Olympiad in Informatics in Provinces (NOIP)

OTHERS

Skill	C++ / C, Python3, JavaScript | PyTorch, MegEngine, Qt
Part-time job	Question for ACM-ICPC 2021 Kunming, Olympiad in Informatics teaching for 100+ hours