

Shenhan Qian

Ph.D. student @ TU Munich

Date of Birth: December 5, 1996

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Research Interests

Implicit Neural Representations, Multi-View Reconstruction, Neural Rendering
Keypoint Estimation, Object Detection, Generative Models

Education

ShanghaiTech University *Shanghai, China* Jun, 2022
M.Sc. Computer Science, supervisor: Shenghua Gao
GPA 3.59/4.0 (**awarded Outstanding Graduate of Shanghai**)

Hunan University *Changsha, China* Jun, 2019
B.Sc. Electrical Engineering and Control Systems
GPA 3.71/4.0 (**top 4%, awarded First-Class Scholarship for three consecutive years**)

Publications

Dual-Space NeRF: Learning Animatable Avatars and Scene Lighting in Separate Spaces

*Yihao Zhi**, **Shenhan Qian***, *Xinhao Yan**, *Shenghua Gao*

International Conference on 3D Vision (3DV), 2022

UNIF: United Neural Implicit Functions for Clothed Human Reconstruction and Animation

Shenhan Qian, *Jiale Xu*, *Ziwei Liu*, *Liqian Ma*, *Shenghua Gao*

European Conference on Computer Vision (ECCV), 2022

Feature Re-Representation and Reliable Pseudo Label Retraining for Cross-Domain Semantic Segmentation

Jing Li, *Kang Zhou*, **Shenhan Qian**, *Wen Li*, *Lixin Duan*, *Shenghua Gao*

Transactions on Pattern Analysis and Machine Intelligence (TPAMI), 2022

Speech Drives Templates: Co-Speech Gesture Synthesis with Learned Templates

Shenhan Qian*, *Zhi Tu**, *Yihao Zhi**, *Wen Liu*, *Shenghua Gao*

International Conference on Computer Vision (ICCV), 2021

KGDet: Keypoint-Guided Fashion Detection

Shenhan Qian*, *Dongze Lian**, *Binqiang Zhao*, *Tong Liu*, *Bohui Zhu*, *Hai Li*, *Shenghua Gao*

AAAI Conference on Artificial Intelligence (AAAI), 2021

Learning to Recommend Frame for Interactive Video Object Segmentation in the Wild

*Zhaoyuan Yin**, *Jia Zheng**, *Weixin Luo*, **Shenhan Qian**, *Hanling Zhang*, *Shenghua Gao*

Conference on Computer Vision and Pattern Recognition (CVPR), 2021

Projects

DeepFashion2 Challenge – Landmark Estimation Track (CVPR 2020 Workshop) Apr, 2020
3rd Place

Combined a multi-stage detector (HTC) and a landmark estimator (HRNet) to detect clothing landmarks in a top-down manner. Adopted weighted sampling strategies to deal with the imbalanced data distribution.

Lane Detection with an Instance Segmentation Approach May, 2019

Graduation Project

Re-implementation of LaneNet with instance segmentation, perspective transformation, and curve fitting.

College Student Electronics Design Contest of Hunan Province Aug, 2018

1st Prize

Built a twin-rotor UAV that can take off, land, and hover steadily. Composed the UAV with 3d-printed parts, microcontrollers, and sensors. Achieved the highest precision of hovering height among all teams.

National College Student Electronics Design Contest Aug, 2017

2nd Prize in Hunan Province

Built a tilting board system to control the movement of a ball on the board with microcontrollers, servos, and a camera. Accomplished smooth and flexible trajectory control.

Awards

Outstanding Graduate of Shanghai Jun, 2022

Merit Student of ShanghaiTech University Jan, 2022

China National Scholarship Oct, 2021

First-Class Scholarship of Hunan University 2016, 2017, 2018

Experiences

ZMO.AI Jul, 2021 – Dec, 2021

Computer Vision Research Intern

Articulated human body reconstruction and re-rendering in novel views and poses.

GPU Cluster Administration Team of ShanghaiTech University Sep, 2019 – Jun, 2021

Assistant System Administrator

Maintaining hardware and software of a distributed GPU cluster, improving a system-monitor website.

Skills

Languages:

Native in Chinese, proficient in English (TOEFL iBT: 106), beginner in German.

Programming:

Python, C/C++, MATLAB, LaTeX.

Techniques:

Machine learning (NumPy, Scipy, Scikit-learn), Deep learning (PyTorch, TensorFlow)

Image processing (OpenCV), 3D modeling (Trimesh, Blender)

Real-time rendering (PyRender, openFrameworks, OpenGL), Differentiable rendering (PyTorch3D)

Robot programming (ROS), Embedded development (Keil)

Web development (Django, Tornado)

Hobbies

Acoustic guitar, swimming, photography.