# Shenhan Qian

Ph.D. student @ TU Munich

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# Education

Technical University of Munich

Oct 2022 - Present

Ph.D. student, supervisor: Prof. Daniel Cremers

ShanghaiTech University

Jun 2022

M.Sc. Computer Science, supervisor: Prof. Shenghua Gao GPA 3.59/4.0 (awarded Outstanding Graduate of Shanghai)

Hunan University 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**

## Gaussian Avatars: Photorealistic Head Avatars with Rigged 3D Gaussians

Shenhan Qian, Tobias Kirschstein, Liam Schoneveld, Davide Davoli, Simon Giebenhain, Matthias Nießner

Conference on Computer Vision and Pattern Recognition (CVPR), 2024 (Highlight, 11.9% of accepted papers)

#### NeRSemble: Multi-view Radiance Field Reconstruction of Human Heads

Tobias Kirschstein, Shenhan Qian, Simon Giebenhain, Tim Walter, Matthias Nießner

Special Interest Group on Computer Graphics and Interactive Techniques (SIGGRAPH), 2023

#### 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

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

Bachelor's Thesis

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.

# Services

#### Conference Reviewer

SIGGRAPH Asia 2024, ECCV 2024, CVPR 2023-2024, ICCV 2023, WACV 2023

#### Journal Reviewer

TPAMI, TVCG, CGF

# **Teaching**

Introduction to Deep Learning (IN2346)	2024-2025 WS
Master Seminar - Neural Radiance Fields (IN2107, IN4499)	2023-2024 SS
Master Seminar - Neural Radiance Fields (IN2107, IN4499)	2022-2023 WS
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	2016-2018
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.