

Hao Sun

SOFTWARE ENGINEER · COMPUTER VISION · VR-PLATFORM

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"Aut Caesar, aut nihil."

Summary

I am currently a software engineer in Fovee, Inc., working on the VR-platform team. I received my master degree from Tokyo Institute of Technology, supervised by Prof. Kenji SUZUKI. I received my B.Eng degree from the School of Computer Science and Technology, Zhejiang University in 2021. At that time, I am also a member of Chu Kochen Honors College. During the university, I also minored in Religious Philosophy, Zhejiang University. Now my main research interest lies in medical image processing, dose reduction for CT.

Work Experience

Fenlai Intelligent Co., Ltd.

ShenZhen, China

COMPUTER VISION ALGORITHM ENGINEER (INTERNSHIP)

Mar.2021 - Jun.2021

- Smart gym based on computer vision technology. I am responsible for the overall architecture design and algorithm implementation of the group exercise project, and realize the multi-person real-time group exercise scoring and action correction system.
- Edge deployment of deep learning models and load balancing system.

Hikvision Co., Ltd.

HangZhou, China

COMPUTER VISION ALGORITHM ENGINEER (INTERNSHIP)

Sep.2021 - Oct.2021

- Investigate video-based pedestrian re-identification technology.

Oppo Japan research center Co., Ltd.

Yokohama, Japan

COMPUTER VISION ALGORITHM ENGINEER (INTERNSHIP)

Mar.2023 - Jul.2023

- Investigate unsupervised optical flow solutions and design deployable real-time unsupervised optical flow algorithms.

FOVE Co., Ltd.

Tokyo, Japan

SOFTWARE ENGINEER

Nov.2023 - Now

- Provide software support for Fove headset

Honors & Awards

INTERNATIONAL

2022 **IIR Research Fellow**, Institute of Innovative Research (IIR), Tokyo Institute of Technology

Tokyo, Japan

DOMESTIC

2018 **2nd Scholarship**, Zhejiang University

HangZhou, China

Publication

- Generating simulated fluorescence images for enhancing proteins from optical microscopy images of cells using massive-training artificial neural networks, SPIE2023

Research Project

3D hair modeling from 2D sketches

Zhejiang University CAD/CG Lab

RESEARCHER

2020.7

- Given a 3D bust model as reference, our sketching system takes as input a user-drawn sketch (consisting of hair contour and a few strokes indicating the hair growing direction within a hair region), and automatically generates a 3D hair model, matching the input sketch.

Fluorescence Images for Enhancing Proteins

Kenji Suzuki Laboratory

RESEARCHER

2022.4

- Fluorescent staining is a commonly used method in biology to observe the state of cells, but unfortunately most of the dyes used in fluorescent staining will affect cells (mostly lethal), which is not conducive to long-term observation of cells. We propose a method that can reconstruct the fluorescent staining map of two proteins in cells from the DIC image of the cell. Since the acquisition of DIC image is harmless to the cell, compared with the direct acquisition of the fluorescent staining map, our method enables long-term observation of some proteins in cells.

Education

ZheJiang University

B.ENG IN COMPUTER SCIENCE AND ENGINEERING

- Selected as a member of Chu Kochen Honors College and won the 2rd scholarship of Zhejiang University.

HangZhou, China

Sep. 2017 - Jul.2021

Tokyo Institute of Technology

M.ENG IN INFORMATION AND COMMUNICATION ENGINEERING

- Research Fellow from Institute of Innovative Research(IIR)

Tokyo, Japan

Sep. 2021 - Jul.2023