

Zoey Qiuyu Chen

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Research Interest

Robot Manipulation, Computer Vision and Machine Learning

Education

University of Washington

PHD, PAUL G. ALLEN SCHOOL OF COMPUTER SCIENCE AND ENGINEERING

Research Focus: Robot Manipulation, Imitation Learning. Advisor: Dieter Fox

Seattle, US

Fall, 2018-Present

University of Washington

MS, ELECTRICAL AND COMPUTER ENGINEERING

Master Thesis: 3D Reconstruction of Blood Vessel from Stereo X-ray Images. Advisor: Jenq-Neng Hwang

Seattle, US

2014-2015, 2016-2017

Xi'an Jiaotong-Liverpool University

B.ENG, ELECTRONIC AND ELECTRICAL ENGINEERING

Research focus: Lasers, Optics and Photonics. Advisor: Cezhou Zhao

Suzhou, China

2010 - 2014

Internships

Imitation learning from single demonstration

RESEARCH INTERN, ADVISOR: VIKASH KUMAR

Learning to generalize with minimal demonstrations.

Meta AI, Pittsburgh

June -Sept, 2022

Dexterous Grasping from Human Demonstration

RESEARCH INTERN, ADVISOR: DIETER FOX

Learning grasping policy for multi-fingered robot from human demonstration.

Nvidia Robotics Lab, Seattle

June-Sept, 2020

Weakly-supervised Object Detection and Tracking in videos

RESEARCH INTERN. ADVISOR: JONATHON MASCI, CHRISTIAN OSENDORFER

Weakly-supervised object detection and tracking using a temporal dynamic Graph LSTM and a simplified Graph attention network.

NNAISENSE, Lugano, Switzerland

Feb-August, 2018

3D Skeletonization towards A Better Holoportation

RESEARCH INTERN. MENTOR: BEN CUTLER

I built a system based on OpenPose which can automatically detect and estimate 3D human poses from multi-view cameras.

Microsoft Research, Redmond

June-Sept, 2017

3D Modeling of Blood Vessels from Stereo 2D X-ray Images

RESEARCH INTERN. ADVISOR: IMARI SATO

Reconstruct blood vessels from X-ray stereo images. The system first segments vessels using Markov Random Fields and then matches dense correspondences using vessel geometric shape in a coarse-to-fine scheme.

National Inst. of Informatics, Tokyo

2015 - 2016

Publications

Learning Robust Real-World Dexterous Grasping Policies via Implicit Shape

Augmentation

ZOY QIUYU CHEN, KARL VAN WYK, YU-WEI CHAO, WEI YANG, ARSALAN MOUSAVIAN, ABHISHEK GUPTA, DIETER FOX

2022

Conference on Robot Learning (CoRL)

DexTransfer: Real World Multi-fingered Dexterous Grasping with Minimal Human Demonstrations

ZOY QIUYU CHEN, KARL VAN WYK, YU-WEI CHAO, WEI YANG, ARSALAN MOUSAVIAN, ABHISHEK GUPTA, DIETER FOX

2022

Imitation Learning workshop at Robotics Science and Systems (RSS), [spotlight].

Virtual Blood Vessels in Complex Background using Stereo X-ray Images

QIUYU CHEN, RYOMA BISE, LIN GU, YINQIANG ZHENG, IMARI SATO, JENQ-NENG HWANG, NOBUAKI IMANISHI AND SADAKAZU AISO

2017

BiImage Computing workshop at International Conference on Computer Vision (ICCV)

The design and simulation of p-type Si/SiGe Terahertz quantum cascade lasers

QIUYU CHEN, JINGJIN WU, ZHOU FANG AND CE ZHOU ZHAO

2014

Journal of Optics and Laser Technology, Vol. 57, 2014, 104–109.

A review of recent progress in lasers on silicon

ZHOU FANG, QIUYU CHEN, CE ZHOU ZHAO

2013

Journal of Optics and Laser Technology, vol. 46 2013, 103-110.

Other Experiences

Take Your First Online Dance Class with TI Sensor Tags

Kazan, Russia

MICROSOFT RESEARCH SUMMER SCHOOL. **BEST PROJECT AWARD (TEAM PROJECT)**

July, 2016

We built a system using TI sensor tags, that can send and receive body movement from "dance teachers" and "students", and give feedback by comparing the difference between signals.

Cabao: The Next Generation of Smart Doorway

Louisville, CO, U.S.

INTERNET OF THINGS INTERN, CABLELABS

Jun. 2015 - Sept. 2015

I built a smart doorbell system based on Raspberry Pi to enable a real-time video chat between you and your visitors. It sends a notification with a picture of visitors via email once the doorbell is pressed. I also built an android app to enable streaming video chat.

Temperature Supervision with Lower Energy Consumption

Shanghai, China

EMBEDDED SOFTWARE INTERN, R.B TECHNOLOGY CO, LTD

Jul. 2014 - Aug. 2014

I built a zigbee-based temperature supervision system to evaluate each air conditioner in a building, I did circuit design and hardware test on power consumption in order to achieve low energy consumption.

Quantum Physics Modelings

Vanderbilt University, TN, US

SUMMER INTERN, ADVISOR: KALMAN VARGA

Summer, 2013

I implemented part of a 3D Schrödinger equation solver. I also simulated electron density in H/Li atom. Additionally, I did experiments on electron density simulation between two quantum dots.

Technical Skills

Proficient in: Python, Pytorch, Linux, MATLAB.

Capable in: ROS, C/C++

Basic Knowledge: CUDA, Caffe, Tensorflow, Java