

Nuoyuan YAN

SOFTWARE ENGINEER · COMPUTER VISION

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Education

HKUST (The Hong Kong University of Science and Technology)

Hong Kong

BACHELOR OF ENGINEERING IN COMPUTER SCIENCE AND ENGINEERING

Sep. 2014 - Jun. 2018

- Related Coursework: OOP, Python, Algorithm, Operating System, Computer Organization, Unix and Script
- Dean's list in Fall 2015-2016

NUS (National University of Singapore)

Singapore

NON-GRADUATE STUDENT IN SCHOOL OF COMPUTING

Aug. 2016 - Dec. 2016

- Computer Graphics, Parallel Computing, Computer Vision

HKUST (The Hong Kong University of Science and Technology)

Hong Kong

MASTER OF PHILOSOPHY IN COMPUTER SCIENCE

Sep. 2018 - PRESENT

- Supervised by Prof. QUAN Long
- Mainly worked on RGB-D Fusion

Skills

Programming Swift, Objective-C, Python, C/C++, Scala, JAVA, LaTeX

Software and Library OpenCV, MPI, PyTorch, CUDA, Metal, OpenGL

Operating System Mac OS X, Windows, Linux

Languages Mandarin, English

Experience

Everest Innovation Technology Limited

Hong Kong

COMPUTER VISION RESEARCHER

Jun. 2019 - Aug. 2019

- Participated in developing Altizure app on iOS platform.
- Implemented adaptive marching cube algorithm in mobile platform.
- Built a real-time RGBD 3D reconstruction system in iOS system.
- Added texture to 3D models with source RGB images.
- Integrated the 3D model into AR using ARKit.

Huawei Technologies Co., Ltd.

Shenzhen, China

SOFTWARE ENGINEERING IN HUAWEI INTERNSHIP PROGRAMME

Jun. 2017 - Aug. 2017

- Participated in Convolutional Billing System(CBS) development.
- Wrote python scripts to execute database instructions on MySQL and Oracle databases.
- Wrote a program for communicating with MySQL database in C++ using MySQL C++ API.
- Added some test cases for automatic test system.
- Wrote a bash script for installing test system automatically.

Undergraduate Research, Computer Vision Lab (Prof. Long QUAN)

Hong Kong

RECONSTRUCTION WITH DJI DRONE

Aug. 2017 - Aug. 2018

- Adapted DJI open source SDK for our own iOS app.
- Extracted single image from DJI video stream.
- Added some callback blocks to adjust images using CGContext from iOS CoreImage framework.
- Used some feature detection algorithm on the image to achieve real time detection.
- Learnt ffmpeg framework to encode and decode video stream.
- Designed an image browser and customized camera app.
- Extracted feature points from iOS ARKit to use in a SLAM system.

Undergraduate Research Opportunity Programme

Hong Kong

RESEARCHER

Mar. 2016 - May. 2016

- Propounded a prototype of LoT on Arduino board.

Individual Project

Voice Controlled Game

COURSE PROJECT

- Implement with python and Cocos2d.
- Similar to Super Mario. The difference was voice controlled.

Hong Kong

Mar. 2017

3D Reconstruction using Structure from Motion (SFM)

COURSE PROJECT

- Reconstructed 3D model from images using OpenCV.

Hong Kong

Mar. 2017

Honors & Awards

DOMESTIC

2017 **Reaching Out Award**, HKSAR Government Scholarship Fund

Hong Kong

2018-2020 **Postgraduate Studentship**, Hong Kong University of Science and Technology

Hong Kong