Siqin Li

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OBJECTIVE

Seeking a challenging position as a software engineer in the area of deep learning and computer vision.

EDUCATION

University of Maryland College Park, MD
Master of Science, Electrical and Computer Engineering May 2018
University of Electronic Science and Technology of China Chengdu, China
Bachelor of Science, Electronic Science and Technology July 2015

- Second-class People's Scholarship, 2013
- First-class People's Scholarship, 2012

RELEVANT COURSES

- **Computer Vision:** Digital Image Processing, Image Understanding, Computer Processing of Pictorial Information
- **Signal Processing:** Random Processes, Estimation and Detection Theory, Advanced Digital Signal Processing, Information Theory, Digital Communication

RESEARCH EXPERIENCE

Current Research Silver Spring, MD
Medical Image Quality Assessment Jun 2018 – Now

Developed a system to automatically detect high-quality regions in endoscopic images based either on convolutional neural network or sparse dictionary learning.

Master Thesis College Park, MD
Gesture-Controlled Drone Jan 2017 - Nov 2017

Develop the Human Robot Interaction pipeline on drones which can be controlled by human body language such as gestures representing desired actions to be performed by the drone.

- Human pose RGB-D video based data collection
- RGB body skeleton and hand skeleton detection using machine learning methods (Support Vector Machine)
- Human action and gesture recognition using novel Convolutional Neural Network (Res-TCN + Multi-models)
- Simulation on ROS where a drone running the same flight controller using the gestures recognized

Projects College Park, MD
Action Recognition in Surveillance Video Jan 2018 – May 2018

- Human Pose Tracking
- Action Detection
- Skeleton based action recognition

3D model reconstruction and segmentation May 2017

- Extracted object of interest from table top RGB-D images
- Reconstruct complete 3D point cloud model
- Segmented the scene of objects collection and built a semantic map

Structure from Motion April 2017

- Implemented a reconstruction of 3D scene based on images

Panorama Stitching March 2017

- Implemented an end-to-end pipeline to do image panorama stitching of unordered images

Face Swapping March 2017

- Successfully detected and seamlessly swapped faces in a video using two different warping techniques

WORK EXPERIENCE

Food and Drug Administration (FDA) Silver Spring, MD
Research Fellow Jun 2018 – Now

- Working at the Center for Devices and Radiological Health (CDRH), Office of Science and Engineering Laboratories(OSEL) and supervised by Dr. Quanzeng Wang.

University of Maryland College Park, MD
Research Assistant January – May 2018

- Working in Computer Vision Lab and Autonomy Robotics Cognition Lab under the guidance of Prof. Yiannis Aloimonos and Dr. Cornelia Fermuller.

Eastern New Mexico University Portales, NM
Supplemental Instructor August 2014 - May 2015

- Instructed the class when necessary
- Provided on-going assistance to students and helped them improve their academic performance

SKILLS

- *Language & Software*: Python (Numpy, OpenCV), C/C++, MATLAB, SQL
- *Operating Systems*: Linux, MacOS, Windows
- *Others*: PyTorch, TensorFlow, Keras, Caffe, ROS