

Yuan Dong

Email: ydong2@andrew.cmu.edu

Mobile: (412) 537-5883

LinkedIn: www.linkedin.com/in/ydong142857/

Homepage: hzsydy.github.io/#

EDUCATION

Carnegie Mellon University – School of Computer Science

Master of Science in Computer Vision (MSCV)

Pittsburgh, PA

Aug 2018 - Dec 2019

Tsinghua University – School of Information Science and Technology

Bachelor of Engineering in Automation | GPA: 93/100(1st/146)

Beijing, China

Aug 2014 - Jun 2018

WORK EXPERIENCES

Megvii Technology Ltd (Face++)

Beijing, China

Research Developer Intern

Feb 2018 - Jun 2018

- Built a generator yielding augmented synthetic car plate images increasing 20% accuracy without introducing new labeled data.
- Collaborated in building a physical-based renderer for 2D car scenes with Blender to handle with occlusions and dense scenes.
- Trained a model with discrete weight to automatically recognize US license plates achieving 82% accuracy on real test scenes.
- Implemented an optimization-based algorithm decomposing comics into stroke sequences with 0.1fps on 512² images [[sample](#)].

RESEARCH EXPERIENCES

Perceptual Computing Laboratory, Robotics Institute, Carnegie Mellon University

Pittsburgh, PA

Research Assistant, supervised by Associate Professor [Yaser Sheikh](#)

Jul 2017 - Sep 2017

- Contributed in building [OpenPose](#), a large open-source multi-view 3D human dataset with color, depth and pose.
- Proposed a CNN-based multi-person 3D human pose estimation algorithm reaching 60% accuracy on 20cm mean error.

Broadband Network & Digital Media Lab, Tsinghua University

Beijing, China

Research Assistant, supervised by Associate Professor [Yebin Liu](#)

Dec 2016 - May 2017

- Developed a clipping, filtering and denoising pipeline on raw Kinect depth and skeleton data attaining real-time performance.
- Implemented a system visualizing voxels into 3D shapes using OpenGL achieving real-time performance.
- Collaborated in a real-time dynamic scene reconstruction system on multi-view depth cameras which was granted a CN patent.

PROJECTS

Navigation and Control Research Center, Tsinghua University

Beijing, China

Team Leader, supervised by Dr. [Geng Lu](#)

Dec 2016 - Aug 2017

- Implemented an object tracking and obstacle auto-avoidance system for UAV from camera and lidar data.
- Orchestrated a team of Tsinghua students building a stable quad-rotor UAV in 2017 International Aerial Robotics Competition.

Future Robotics Club, Tsinghua University

Beijing, China

Major Participant and later Team Leader, supervised by Associate Professor [Qing Zhuo](#)

Aug 2015 - Dec 2016

- Developed a robust scene segmentation and object detection algorithm from color and depth image in indoor scenes.
- Drove a manipulator based on segmentation and detection result showing robustness taking non-rigid soft objects.
- Won 2nd place in object manipulation section with an accuracy of 40% in RoboCup (a major competition in robotics) 2016 [[video](#)].

PUBLICATIONS

- Tao Yu, Kaiwen Guo, Feng Xu, **Yuan Dong**, Zhaoqi Su, Jianhui Zhao, Jianguo Li, Qionghai Dai, Yebin Liu, "BodyFusion: Real-time Capture of Human Motion and Surface Geometry Using a Single Depth Camera", In *IEEE International Conference on Computer Vision (ICCV)*, 2017 [[project page](#)]

SKILLS

- Programming Languages: Python, C, C++, C#, Matlab, VHDL, and HTML.
- Computing Environments: Windows, Linux, STM32 Microcontrollers, FPGA, and Arduino.
- Packages: Numpy/Scipy, Caffe/Tensorflow/Pytorch, Matplotlib, OpenCV, OpenGL, CUDA, PCL, Eigen, Boost.

SCHOLARSHIPS & AWARDS

- Outstanding Graduates of Department of Automation, Tsinghua University.
- Fang Chongzhi Scholarship (Highest scholarship by Department of Automation, Tsinghua University, 1/600).
- China National Scholarship (Highest scholarship by Government of China, top 0.1%).
- Meritorious Winner of Mathematical/Interdisciplinary Contest in Modeling(MCM/ICM) (Top 10%).