

Weiyue Wang

3737 Watt Way, PHE 108, Los Angeles, CA 90089

✉ weiyuewa@usc.edu • 🌐 www-scf.usc.edu/~weiyuewa/

Last Update: Aug, 2018

Education

- **University of Southern California** **Los Angeles, CA, USA**
○ *Ph.D., Computer Science*
Advised by: Prof. Ulrich Neumann
08/2015–Present
- **Ohio State University** **Columbus, OH, USA**
○ *M.S., Electrical and Computer Engineering*
Advised by: Prof. Aleix Martinez GPA: 3.97/4.0
08/2013–05/2015
- **Shanghai Jiaotong University** **Shanghai, China**
○ *B.S., Electrical Engineering*
Advised by: Prof. Weiyao Lin GPA: 91/100
09/2010–07/2014

Publications

- **Weiyue Wang** and Ulrich Neumann, "Depth-aware CNN for RGB-D Segmentation", *European Conference on Computer Vision (ECCV)*, 2018
- **Weiyue Wang**, Ronald Yu, Qiangui Huang and Ulrich Neumann, "SGPN: Similarity Group Proposal Network for 3D Point Cloud Instance Segmentation", *IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, 2018
- Qiangui Huang, **Weiyue Wang**, and Ulrich Neumann, "Recurrent Slice Networks for 3D Segmentation on Point Clouds", *IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, 2018
- **Weiyue Wang**, Qiangui Huang, Suyu You, Chao Yang and Ulrich Neumann, "Shape Inpainting using 3D Generative Adversarial Network and Recurrent Convolutional Networks", *International Conference on Computer Vision (ICCV)*, 2017
- **Weiyue Wang**, Naiyan Wang, Xiaomin Wu, Suyu You and Ulrich Neumann, "Self-Paced Cross-Modality Transfer Learning for Efficient Road Segmentation", *International Conference on Robotics and Automation (ICRA)*, 2017
- Qiangui Huang, **Weiyue Wang**, Kevin Zhou, Suyu You and Ulrich Neumann, "Scene Labeling using Gated Recurrent Units with Explicit Long Range Conditioning", *arXiv preprint: 1611.07485*, 2017
- Weiyao Lin, Yang Mi, **Weiyue Wang**, Jianxin Wu, and Jingdong Wang, "A Diffusion and Clustering-based Approach for Finding Coherent Motions and Understanding Crowd Scenes", *IEEE Transaction on Image Processing (TIP)*, 2016
- Weiyao Lin, Yang Mi, **Weiyue Wang**, "Finding Coherent Motions and Understanding Crowd Scenes: a Diffusion and Clustering-based Approach", *IEEE Conference on Computer Vision and Pattern Recognition Scene Understanding (CVPR SUNw)*, 2015
- **Weiyue Wang**, Weiyao Lin, Yuanzhe Chen, Jianxin Wu, Jingdong Wang, and Bin Sheng, "Finding Coherent Motions and Semantic Regions in Crowd Scenes: A Diffusion and Clustering Approach", *European Conference on Computer Vision (ECCV)*, 2014

Selected Projects other than Publications

- **Content Management System(CMS) Design with python Django** August 2017–Present CGIT, USC
 - Developed a CMS using python web framework Django and Postgres database.
 - Implemented various features such as blog post, comment, messages, questions.
 - Refer to yiben.ink:8080 for the website.
- **CAD symbol recognition and visualization** August 2015–December 2016 CGIT, USC

- Implemented an example-driven CAD symbol recognition framework using Java.
- Conducted experiment on industrial data (.dwg and .pdf files) and built a visualization system to render the recognition results.
- **Kernel Subclass Discriminant Analysis (KSDA) based Action Units (AUs) Detection** *August 2014–May 2015 CBCSL, OSU*
 - Proposed a KSDA based algorithm to detect AUs.
 - Designed a triangulation-based feature for face recognition.
 - Implemented the proposed algorithm and compared the experimental results with the state-of-the-art.

Internships

- **Adobe** **San Jose, CA, USA**
3D Vision Researcher *May 2018–August 2018*
 - 3D reconstruction from 2D images.
- **Tusimple** **San Diego, CA, USA**
3D Vision Researcher, Deep Learning Researcher *May 2016–August 2016, May 2017–August 2017*
 - Developed a SLAM system for autonomous driving vehicle.
 - Implemented a deep regression LSTM network for camera motion prediction.
 - Designed a network for optical flow and disparity estimation based on FlowNet.
 - Incorporated deep learning techniques for dense correspondence prediction into SLAM.
 - Designed a self-supervised road segmentation framework. (ICRA 2017)
 - Modified ENet and applied it on real-time road segmentation.
 - Incorporated self-paced learning into deep learning training.
 - Achieved 1st place on KITTI road segmentation task. (Sep. 2016)
- **Alesca Life Technology** **Beijing, China**
Hardware Engineer *May 2015–August 2015*
 - Developed control systems algorithm for use in hydroponic indoor farming.
 - Implemented RF communication, DC motor control, precision timing, and signal processing circuit designs.

Technical skills

- **Programming Skills:** Python, C++, Java, Matlab, \LaTeX , CUDA.
 Also basic ability with: VBA, VHDL, Verilog, R, HTML/CSS.
- **OpenSource Packages:** PyTorch, Tensorflow, MxNet, Caffe, Theano, OpenCV, Django.

Academic Services and Honors

- **Reviewer:** CVPR18, IROS18, ICRA18, ACCV18, ISPRS Journal of Photogrammetry
- **TA:** USC CSCI-580 Database Systems, USC CSCI-677 Computer Vision
- **Honors:** Chevron Fellowship (2017), SJTU Academic Excellence Scholarship (2011,2012,2013), Liguang Scholarship (2012)