

ZHONGZHENG (JASON) REN

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Research Interest

My research interests lie in Computer Vision and Machine Learning. Specifically, they are: (1) Learning visual knowledge with minimal human supervision. (2) Leveraging synthetic data to help real-world vision tasks. (3) Privacy preserving computer vision technology.

EDUCATION

Ph.D 2018 - 202x University of Illinois at Urbana-Champaign (UIUC)
• Major: Computer Science

M.Sc. 2015 - 2017 University of California, Davis (UCD)
• Major: Computer Science
• Thesis: Multi-task Feature Learning using Synthetic Game Imagery.
• Thesis Committee: Yong Jae Lee (advisor), Kuan-liu Ma, Cho-Jui Hsieh

B.Eng. 2011 - 2015 Sun Yat-sen University (SYSU)
• Major: Software Engineering
• Thesis: Clothes Co-Parsing via weakly supervised Image Segmentation and Labeling.

PUBLICATIONS

ECCV 18 Learning to Anonymize Faces for Privacy Preserving Action Detection.
Zhongzheng Ren, Yong Jae Lee, Michael S. Ryoo.
European Conference on Computer Vision (ECCV), 2018.

CVPR 18 Cross-Domain Self-supervised Multi-task Feature Learning using Synthetic Imagery.
Zhongzheng Ren, Yong Jae Lee.
IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2018.

WACV 17 Who Moved My Cheese? Automatic Annotation of Rodent Behaviors with Convolutional Neural Networks.
Zhongzheng Ren, Adriana Noronha, Annie Vogel Ciernia, Yong Jae Lee.
IEEE Winter Conference on Application of Computer Vision (WACV), 2017.

WORKING EXPERIENCE

NVIDIA 2018.5-2018.8 Research Intern
• Supervisor: Zhiding Yu, Ming-Yu Liu, Xiaodong Yang, and Jan Kautz
• We work on weakly supervised segmentation.

EgoVid 2017.9-2018.5 Research Engineer
• Supervisor: Michael S. Ryoo
• We worked on recognizing human actions from privacy-preserved videos. A pixel-level anonymizer is learned to modify human face, while minimizing the effect on action detection performance. (ECCV'18)

UCD 2017.9-2018.5 Visiting Scholar
• Supervisor: Yong Jae Lee
We designed a self-supervised visual representation learning algorithm using synthetic imagery in a multi-task setting that also adapts its features to real-world images, which achieved STOA results on transfer learning benchmarks (CVPR'18).

UCD 2016.4-2017.9 Graduate Student Researcher
• Advisor: Yong Jae Lee
Worked on Automatic Rodent behaviors Annotation. We introduced deep learning based classification methods to replace classical tracking approaches and released a program to save

human annotation labor in neuro-science experiments (WACV'17).

SYSU *2014.9-2015.5* **Undergraduate Student Researcher**
 Participated in the Human Clothes Parsing project. I mainly worked on speeding up the program and removing human supervision by leveraging human detector and human pose. We released the dataset containing 2098 street fashion photos with pixel level annotations.

TEACHING EXPERIENCE

Teaching Assistant ECS 174 Computer Vision, Spring Qtr. 2017, UC Davis

COMPUTER SKILLS

OS Linux, Mac OS, Windows
Tools Caffe(2), (Py-)Torch, TensorFlow, OpenCV, LIBSVM
Languages Python, Lua, Matlab, C/C++, Shell, HTML, L^AT_EX
Game Engines Blender, UnrealEngine 4

SELECTED AWARDS & HONORS

2018 · Travel Grant, CV-COPS 2018
 2017 · AWS Education Research Grant (\$15000), Amazon
 2017 · Graduate Student Travel Award, UC Davis
 2016 · Graduate Group in Computer Science(GGCS) travel award, UC Davis
 2015 · Excellent Undergraduate Thesis, Software School, SYSU
 2012, 2013 · Second Prize University Scholarship, SYSU