CHIH-HUI HO

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EDUCATION

University of California San Diego, La Jolla, CA Sep. 2019 - Now
PhD Candidate in Electrical and Computer Engineering (Advisor: Prof. Vasconcelos)

University of California San Diego, La Jolla, CA Sep. 2017 - Jun. 2019
M.S. in Computer Science, GPA: 3.87/4.0

University of Illinois at Urbana-Champaign, Champaign, IL Jan. 2016 - May 2016
Exchange student in Computer Science, GPA: 3.71/4.0

National Chiao Tung University, Hsinchu, Taiwan Sep. 2012 - Jun. 2016
B.S. in EECS Honor Program, GPA: 4.15/4.3

RESEARCH INTEREST

Deep Learning & Computer Vision: Metric learning, Adversarial attack, Self-supervised learning, Recognition, Multiview object classification, 3D understanding

SELECTED PUBLICATION

• **Chih-Hui Ho**, Nuno Vasconcelos, "Contrastive Learning with Adversarial Examples", In *Neural Information Processing Systems (NeurIPS)*, 2020.

• Tz-Ying Wu, Pedro Morgado, Pei Wang, **Chih-Hui Ho**, Nuno Vasconcelos, "Solving Long-tailed Recognition with Deep Realistic Taxonomic Classifier", In *European Conference on Computer Vision (ECCV)*, 2020.

• **Chih-Hui Ho**, Bo Liu, Tz-Ying Wu, Nuno Vasconcelos, "Exploit Clues from Views: Self-Supervised and Regularized Learning for Multiview Object Recognition", In *IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, 2020.

• **Chih-Hui Ho**, Pedro Morgado, Amir Persekian, Nuno Vasconcelos, "PIEs: Pose Invariant Embeddings", In *IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, 2019.

• **Chih-Hui Ho**[*], Brandon Leung[*], Erik Sandstrom, Yen Chang, Nuno Vasconcelos, "Catastrophic Child's Play: Easy to Perform, Hard to Defend Adversarial Attacks", In *IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, 2019.

• Jen-Hui Chuang, **Chih-Hui Ho**, Ardian Umam, HsinYi Chen, Mu-Tien Lu, Jenq-Neng Hwang, Tai-An Chen, "Geometry-based Camera Calibration Using Closed-form Solution of Principal Line", IEEE Transaction on Image Processing (TIP) , 2019.

PROFESSIONAL EXPERIENCE

Graduate Student Researcher, Statistical Visual Computing Lab, UCSD Jan. 2018 - Now
• Working on multiview recognition, self-supervised learning, structured embedding

Amazon AWS Applied Scientist Intern Jun. 2021 - Sept. 2021
• Developed a visual grounding transformer model with 1.3x smaller size and 3x faster speed

Research Assistant, NCTU Computer Vision Research Center Nov. 2016 - Jun. 2017
• Designed bill serial number recognition system with more than 99 % accuracy
• Developed camera calibration algorithm and implemented the algorithm into prototype

Software Engineer Internship, Industrial Technology Research Institute Jan. - Dec. 2015
• Developed a prototype to calibrate robotic arm with an industrial camera
• Received Mechanical and Systems Research Lab Prospective Project Excellence Award

ACADEMIC SERVICES AND AWARD

• **Reviewer:** NeurIPS, CVPR(outstanding award), ECCV, ICCV, TPAMI, ICML, ICLR, ACCV, WACV, ICIP

• **UCSD Teaching Assistant:** ECE 271B Statistical Learning II, ECE 271C Deep Learning and Applications

• **2021 Qualcomm Innovation Fellowship Finalist**

SKILLS

Languages & Library: Python, C/C++ , MATLAB, Pytorch, OpenCV, Keras, Kubernetes, LaTeX