CHIH-HUI (JOHN) HO

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EDUCATION

University of California San Diego, La Jolla, CA   Sep. 2019 - Now
  PhD student in Electrical and Computer Engineering

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

Computer vision, Image processing, Artificial intelligence, Machine learning, Deep learning

PUBLICATION

- Jen-Hui Chuang, **Chih-Hui Ho**, Ardian Umam, HsinYi Chen, Mu-Tien Lu, Jenq-Neng Hwang, Tai-An Chen. A New Technique of Camera Calibration: A Geometric Approach Based on Principal Lines *https://arxiv.org/abs/1908.06539*, 2019.

- **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.

- Yu-Shiuan Tsai, Yi-Yu Hsieh, **Chih-Hui Ho**, Ya-Ching Chang, Yao-Yuan Chang, Heng-Jyun Lin, Han-Yang, Wang; Yu-Chen Chou, Jen-Hui Chuang. Rule-Based Optical Character Recognition for Serial Number on Renminbi Banknote, In *IS&T Electronic Imaging 2018 (EI)* (oral presentation)

ACADEMIC SERVICES

- **Reviewer:** IEEE International Conference on Image Processing (ICIP) 2019
- **Teaching Assistant:** ECE 271C Deep Learning and Applications, UCSD

PROFESSIONAL EXPERIENCE

Graduate Student Researcher, Statistical Visual Computing Lab, UCSD   Jan. 2018 - Now
  - Currently working on multiview images feature representation

Research Volunteer, San Diego Supercomputer Center   Sep. 2017 - Dec. 2017
  - Reduced error of large scale operational facility data (200 GB) in scientific workflow by 23%

Research Assistant, NCTU Computer Vision Research Center   Nov. 2016 - Jun. 2017
  - Developed deep learning model for human activity analysis in aerial images
  - Designed bill serial number recognition system with more than 99 % accuracy
  - Developed camera calibration algorithm and implemented the algorithm into prototype
  - Developed algorithm for automated optical inspection (AOI) for bobbin defects

Software Engineer Internship, Industrial Technology Research Institute   Jan. - Dec. 2015
  - Developed a prototype to calibrate robotic arm with an industrial camera
  - Represented ITRI to attend 2015 Taiwan Automation Intelligence and Robot Show
  - Received Mechanical and Systems Research Lab Prospective Project Excellence Award

Research Internship, Cornell University Advanced Multimedia Lab   Jul. - Aug. 2014
  - Design algorithm to generate image collage based on emotional ROIs

SKILLS

Languages: Python, C/C++ , MATLAB, C#

Library: Pytorch, Tensorflow, Numpy, Pandas, Matplotlib, MatConvNet, OpenCV, Keras, LATEX