

CHIH-HUI (JOHN) HO

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EDUCATION

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- University of California San Diego, La Jolla, CA** 09/2017 - 2024 (Expected)
PhD Candidate in Electrical and Computer Engineering (Advisor: Nuno Vasconcelos)
M.S. in Computer Science, GPA: 3.87/4.0
- University of Illinois at Urbana-Champaign, Champaign, IL** 01/2016 - 05/2016
Exchange student in Computer Science, GPA: 3.71/4.0
- National Chiao Tung University, Hsinchu, Taiwan** 09/2012 - 06/2016
B.S. in EECS Honor Program, GPA: 4.15/4.3

RESEARCH INTEREST

Deep Learning & Computer Vision: 14 papers during PhD across broad topics, including visual language foundational model, self-supervised learning, anomaly detection, 3D vision and adversarial attack

SELECTED PUBLICATION

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- **Chih-Hui Ho***, Tz-Ying Wu*, Nuno Vasconcelos, "ProTeCt: Prompt Tuning for Hierarchical Consistency", *Preprint*.
 - **Chih-Hui Ho***, Yuwei Zhang*, Nuno Vasconcelos, "Toward Unsupervised Realistic Visual Question Answering", In *International Conference on Computer Vision (ICCV)*, 2023.
 - **Chih-Hui Ho**, Nuno Vasconcelos, "DISCO: Adversarial Defense with Local Implicit Functions", *NeurIPS*, 2022.
 - **Chih-Hui Ho**, Srikar Appalaraju, Bhavan Jasani, R. Manmatha, Nuno Vasconcelos, "YORO - Lightweight End to End Visual Grounding", *ECCV Workshop*, 2022.
 - Brandon Leung, **Chih-Hui Ho**, Nuno Vasconcelos, "Black-Box Test-Time Shape REFINement for Single View 3D Reconstruction", *CVPR Workshop*, 2022.
 - **Chih-Hui Ho**, Nuno Vasconcelos, "Contrastive Learning with Adversarial Examples", *NeurIPS*, 2020.
 - Tz-Ying Wu, Pedro Morgado, Pei Wang, **Chih-Hui Ho**, Nuno Vasconcelos, "Solving Long-tailed Recognition with Deep Realistic Taxonomic Classifier", *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", *CVPR*, 2020.
 - **Chih-Hui Ho**, Pedro Morgado, Amir Persekian, Nuno Vasconcelos, "PIEs: Pose Invariant Embeddings", *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", *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", *TIP*, 2019.

PROFESSIONAL EXPERIENCE

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- Graduate Student Researcher, Statistical Visual Computing Lab, UCSD** 01/2018 - Now
 - Working on large foundational models, self-supervised learning and anomaly detection
 - Collaborating with Korean Polytechnic University and PCB/tire company on anomaly detection
- Mitsubishi Electric Research Lab, Research Intern** 06/2023 - 09/2023
 - Conducted research on anomaly detection using visual language foundational model
- Amazon AWS, Applied Scientist Intern** 06/2021 - 09/2021
 - Published a visual grounding transformer paper with 1.3x smaller size and 3x faster speed
- Research Assistant, NCTU Computer Vision Research Center** 11/2016 - 06/2017
 - Developed a bill serial number recognition system and a camera calibration algorithm for prototype
- Software Engineer Internship, Industrial Technology Research Institute** 01/2015 - 12/2015
 - Developed a prototype to calibrate robotic arm with an industrial camera

ACADEMIC SERVICES AND AWARD

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- **Outstanding Reviewer:** CVPR, ICML **Reviewer:** NeurIPS, ECCV, ICCV, TPAMI, ICLR, ACCV, WACV, ICIP
 - **Award:** 2022 NeurIPS Scholar Award, 2022 Amazon Post-Internship Award, 2021 Qualcomm Innovation Award Finalist

SKILLS

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