CHI-JUI (JERRY) HO

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EDUCATION

Ph.D. of Electrical and Computer Engineering, UC San Diego   2020-2026 (expected)
GPA: 3.90/4.00, Advisor: Nick Antipa

B.S. of Electrical Engineering, National Taiwan University   2015 - 2019
GPA: 3.88/4.30, Advisor: Homer H. Chen

INDUSTRY EXPERIENCE

Meta Reality Labs, Eye Tracking Research, Research Scientist Intern   Jun 2024 – Sep 2024
Developed a simulation platform for diverse eye-tracking sensors and analyzed how gaze estimation performance depends on sensor design and specifications.

Mediatek, Dept. of Multimedia, Summer Intern   Jul 2018 - Aug 2018
Built an evaluation tool to assess the performance of phase and contrast detection autofocus.

RESEARCH INTERESTS

My research explores the intersection of physics and computation for imaging system design and optimization, integrating physical modeling with data-driven algorithms to enhance imaging performance and interpretability. Research projects span differentiable optics simulation, computational photography, and medical imaging.

HONOR & AWARDS

Department Fellowship   Oct. 2020 - Jul. 2021
Electrical and Computer Engineering, UCSD   *San Diego, CA*
Merit Award   Jun. 2020
LITEON Technology Corp.   *Taipei, Taiwan*
First prize of Undergraduate Innovation Award   Sep. 2019
Electrical Engineering, NTU   *Taipei, Taiwan*
College Student Research Creativity Award   Sep. 2019
MOST Taiwan   *Taiwan*

SKILLS

Frameworks	PyTorch, OpenCV, Zemax
Programming Language	Python, C++, Verilog, Matlab, Latex

SELECTED PUBLICATION

- C.-J. Ho, Y. Behle, R. Ramamoorthi, T.-M. Li, and N. Antipa, "A Differentiable Wave Optics Model for End-to-End Computational Imaging System Optimization," in *International Conference on Computer Vision, 2025*

- C.-J. Ho, S. Duong, Y. Wang, C. Nguyen, B.Bui, S. Truong, T. Nguyen, and C. An, "An Unsupervised Learning Approach to 3D Rectal MRI Volume Registration," in *IEEE Access*, vol. 10, pp. 87650-87660, 2022, doi: 10.1109/ACCESS.2022.3199379.

- C.-J. Ho, M. Calderon-Delgado, M.-Y. Lin, J.-W. Tjiu, S.-L. Huang, and H. H. Chen, "Classification of Squamous Cell Carcinoma from FF-OCT Images: Data Selection and Progressive Model Construction," in *Computerized Medical Imaging and Graphics* 93 (2021): 101992.

- C.-J. Ho, M. Calderon-Delgado, C.-C. Chan, M.-Y. Lin, J.-W. Tjiu, S.-L. Huang, and H. H. Chen, "Detecting mouse squamous cell carcinoma from submicron full-field optical coherence tomography images by deep learning," in *Journal of Biophotonics*, 2020.

- C.-J. Ho, C.-C. Chan, and H. H. Chen, "AF-Net: A Convolutional Neural Network Approach to Phase Detection Autofocus," in *IEEE Transactions on Image Processing*, vol. 29, pp. 6386-6395, 2020.