

Yijie Zhang

1400 Midvale Ave, Los Angeles, CA 90024
(310) 486-9684 yijiezhong@g.ucla.edu

EDUCATION

University of California Los Angeles, Los Angeles, CA	Sep. 2018 – Exp. Apr. 2020
M.S. in Electrical Engineering	
Zhejiang University, Hangzhou, China	Sep. 2014 – June. 2018
B.E. in Opto-Electronics Information Science and Engineering	

RESRARCH INTEREST

Computational Imaging, Biomedical Imaging, Machine Learning, Digital Pathology

RESEARCH EXPERIENCE

University of California, Los Angeles	Apr. 2018 – Exp. Apr. 2020
Graduate Research Student, Virtual Staining	
<ul style="list-style-type: none">Implemented Image preprocessing such as image registration on several datasets.Designed a neural network for virtual multi staining, staining blending and capturing microstructures of staining tissues.Optimized the state-of-the-art system for virtual staining to get credible inference results for pathologist's clinical diagnosis.	
Zhejiang University	Mar. 2018 – May 2020
Undergraduate Research Student, Invisibility Cloak with Optical Surface Transformation	
<ul style="list-style-type: none">Designed and simulated structure of the device by COMSOL, Fabricated the device and waveguide.Set up testing system, tested the device and documented the device's performance in different fields	
University of Notre Dame	Jul. 2018 – Aug. 2020
Summer Research Student, Photo-Induced Terahertz Circuit	
<ul style="list-style-type: none">Designed structure of the optical tuning EBG circuit, and optimized it with HFSSBuilt the optimized circuit and did some tests by VNA	

PROJECTS

Deep optics beyond reconstruction	Oct. 2018 – Exp. Jan. 2020
<ul style="list-style-type: none">Built a differentiable optical image formation model and optimize the optical model with Unet on NYU Depth-v2 dataset to get depth encoded images.Continued the deep optics model with high level application, which is still in progress.	

PUBLICATIONS

- Y. Rivenson, K. de haan, **Y. Zhang**, and A. Ozcan, "Virtual histological staining on the use of deep learning". Review paper. In Writting.
- K. de haan*, **Y. Zhang***, J. Li, Y. Rivenson, and A. Ozcan, "Virtual histological staining for clinical diagnosis in Kidney Transplant ". In Progress (co-first author)
- K. de haan*, **Y. Zhang***, Y. Rivenson, and A. Ozcan, "Multi Virtual histological Staining, Staining Blending and Staining for Microstructure" To be submitted to *Light: Science & Applications*. (co-first author)
- Y. Zhang**, A. Echeberriaa, T. Zhoua and B. Jalali, "A Camouflage Device Without Metamaterials," Poster, *Photonics West 2020*, accepted.
- F. Sun*, **Y. Zhang***, J. Evans, and S. He, "A Camouflage Device Without Metamaterials," *Progress In Electromagnetics Research*, Vol. 165, 107-117, 2019. (co-first author)
- P. Cataldi, J. Guerrero, S. Puyol, L. Ceseracciu, L. Notte, A. Reale, **Y. Zhang**, et al. "Sustainable electronics based on crop plant extracts and graphene: A "bioadvantaged" approach, " *Advanced Sustainable Systems*, vol. 2, no. 8, 2018.

Skills

Programming languages and Framework	Python, C, JAVA, MATLAB, TensorFlow
Simulation Software	HFSS, ZMAX, COMSOL, AutoCAD, SolidWork