

Weikun Han

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EDUCATION

- 2016-2018 **University of California Los Angeles, CA**
M.S. in Electrical and Computer Engineering
Advised by: Prof. Lei He
- 2011-2016 **Iowa State University, IA**
B.S. in Electrical Engineering
Advised by: Prof. Liang Dong

EXPERIENCE

- JUL. 2020 - PRESENT **Oregon State University, Corvallis, OR**
Research Assistant at CoRIS institute
Supervisor: Prof. Fuxin Li
I researched deep learning algorithms on 3D point clouds and proposed Superpixel PCNN to matches the same CNN performance in 2D images of a similar structure
- JAN. 2020 - JUN. 2020 **Clobotics Global, Bellevue, WA**
Computer Vision Scientist and Machine Learning Engineer II
 - I researched the fine-grained image classification task to improve model performance in classifying thousands of indistinguishable retail goods
 - I implemented an active learning pipeline for the machine learning system that enables interactively query human to label necessary training data
 - I collaborated with the team to design and develop the data operations platform that enables non-technical persons to operate the machine learning system
- OCT. 2018 - JAN. 2020 **Computer Vision Scientist and Machine Learning Engineer**
 - I researched the object detection task to improve model performance on many disorganized product display scenes in the offline retail market
 - I implemented an image retrieval system to speed up data collection that reduces the model iteration period from a month to days after launching new products
 - I collaborated with the team to design and develop a product search website that enables people can retrieve new products in streaming data
- AUG. 2018 - OCT. 2020 **Research Intern**
I researched the image clustering task to design and develop an image retrieval system that can discover new products in the market
- MAR. 2018 - JUL. 2018 **University of California Los Angeles, CA**
Graduate Research Assistant at VCLA lab
Supervisor: Prof. Song-Chun Zhu
I researched deep Learning acceleration and compression to reduce model computation cost and storage size without regression in model performance

DEC. 2016 - MAR. 2018	<p><i>Graduate Research Assistant at Design Automation Laboratory</i> <i>Supervisor: Prof. Lei He</i></p> <ul style="list-style-type: none"> • I researched adversarial deep learning to design and develop the voice autoencoder to estimate uncertainty and improve robustness • I worked on embedded software validation to design and develop a framework into the symbolic execution tool using the LLVM compiler
JUN. 2014 - MAY 2016	<p>Iowa State University, IA <i>Undergraduate Research Assistant at Laboratory for MEMS and Biochip</i> <i>Supervisor: Prof. Liang Dong</i></p> <ul style="list-style-type: none"> • I researched nanotechnology to design, manufacture, and test nano-scale structures devices by operating micro-fabrication laboratory equipment • I co-authored three publications in major journals and two publications in major conferences, and one paper got the best student paper award

AWARDS AND HONORS

- 2017 **Best Student Paper Award**
The 17th IEEE International Conference on Nanotechnology
- 2015 **Magna Cum Laude Honor**
Iowa State University
Ranked 1 st in a class of 2015 Electrical Engineering graduates (Winter)
- 2013 - 2015 **Dean's List Honor**
Iowa State University
Given to top ranked students

PUBLICATIONS

Journal Publications

- [1] Q. Wang, W. Han, Y. Wang, M. Lu, and L. Dong, "Tape nanolithography: a rapid and simple method for fabricating flexible, wearable nanophotonic devices," *Microsystems and Nanengineering*, 4, 31 (2018)
- [2] Y. Wang, L. Liu, Q. Wang, W. Han, M. Lu and L. Dong, "Strain-tunable plasmonic crystal using elevated nanodisks with polarization-dependent characteristics," *Applied Physics Letters*, 108, 071110 (2016)
- [3] Q. Wang, W. Han, P. Liu, L. Dong, "Electrically tunable quasi-3-D mushroom plasmonic crystal," *Journal of Lightwave Technology*, 34, 2175-2181 (2016)

Conference Publications

- [4] Q. Wang, W. Han, Y. Wang, M. Lu and L. Dong, "Tape-based flexible metallic and dielectric nanophotonic devices and metamaterials," *2017 IEEE 17th International Conference on Nanotechnology (IEEE-NANO)*
- [5] Y. Wang, L. Liu, Q. Wang, W. Han, M. Lu and L. Dong, "Strain-tunable two-dimensional plasmonic crystals," *2015 Photonics Conference (IPC)*

TEACHING

- Iowa State University, IA**
- FALL 2014 *Teacher Assistant, EE 224: Signals and Systems I*
Enrollment: 40