Grace Kuo

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Education

University of California, Berkeley, Berkeley, CA — **2015 - present**
PhD in Electrical Engineering and Computer Sciences
Advised by Professors Laura Waller and Ren Ng.

Washington University in St. Louis, St. Louis, MO — **2011 - 2015**
BS in Electrical Engineering
Engineering Class Valedictorian, graduated Summa Cum Laude.

Current Research

My research is in computational imaging, which is the joint design of hardware and algorithms for imaging and display systems. I work at the intersection of optics, signal processing, computer graphics, and optimization.

Industry Experience

Facebook Reality Labs (Oculus Research), Research Intern — **5/2018 - 9/2018**
Computational display systems for virtual and augmented reality.

MIT Lincoln Laboratory, Research Intern — **5/2014 - 8/2014**
Electromagnetic simulation and optimization for antenna design.

Selected Publications

High Resolution Étendue Expansion for Holographic Displays — **2020**
Grace Kuo, Laura Waller, Ren Ng, and Andrew Maimone
SIGGRAPH 2020

On-chip Fluorescence Microscopy with a Random Microlens Diffuser — **2020**
Grace Kuo, Fanglin Linda Liu, Irene Grossrubatscher, Ren Ng, and Laura Waller
Optics Express 28.6, pp. 8384-8399

DiffuserCam: Lensless Single-exposure 3D Imaging — **2018**
Grace Kuo*, Nick Antipa*, Reinhard Heckel, Ben Mildenhall,
Emrah Bostan, Ren Ng, and Laura Waller
Optica 5.1, pp. 1-9

Learned Reconstructions for Practical Mask-based Lensless Imaging — **2019**
Kristina Monakhova, Joshua Yurtsever, **Grace Kuo**, Nick Antipa,
Kyrollos Yanny, and Laura Waller
Optics Express 27.20, pp. 28075-28090

Invited Talks

Illinois Wesleyan University, Colloquium Speaker — **10/2019**

Computational Cameras and Displays Workshop — **6/2019**
Conference on Computer Vision and Pattern Recognition (CVPR)

Sculpted Light in the Brain — **6/2019**

MIT New Directions in Imaging Seminar Series — **12/2018**

Honors and Awards

Best Demo, International Conference on Computational Photography — **2017**
National Defense Science and Engineering Graduate Fellowship — **2016 - 2019**
UC Berkeley EECS Department Fellowship — **2015 - 2016**

Teaching, Service, and Outreach

Instructor for EECS 16A (Introduction to EE), UC Berkeley — **Summer 2020**
Head Content TA for EECS 16A (Introduction to EE), UC Berkeley — **Spring 2018**
EE Graduate Student Association Community Outreach — **2016 - 2018**
Berkeley Center for Computational Imaging (BCCI) — **2016 - 2017**
Seminar Series Organizer