

Stanford



Yifan (Evan) Peng

Postdoctoral Research Fellow, Electrical Engineering

CONTACT INFORMATION

- **Alternate Contact**

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Bio

BIO

PhD in Computer Science, The University of British Columbia, Canada (2013.09-2018.05)

MSc in Optical Science & Engineering, Zhejiang University, China (2010.09-2013.03)

BEs in Opto-Electronic Engineering (major) / Business Administration (minor), Zhejiang University (2006.09-2010.07)

- Research Assistant, Imager Lab, The University of British Columbia (2013.09-2018.09)

- Visiting Student Researcher, Computational Imaging Group, Stanford University (2017.12-2018.03)

- Visiting Student Researcher, Visual Computing Center, KAUST (2016.11-2017.02 & 2015.10-2016.01 & 2014.10-2015.01)

- Display & Interaction Tech. Researcher, Lenovo Global R&T (2013.04-2013.08)

- Research Assistant, State Key Lab. of Modern Optical Instrumentation, Zhejiang University (2010.04-2013.04)

PROFESSIONAL EDUCATION

- Doctor of Philosophy, University of British Columbia (2018)
- Master of Science, Zhejiang University (2013)
- Bachelor of Engineering, Zhejiang University (2010)
- Bachelor of Management, Zhejiang University (2010)

PATENTS

- Xu Liu, Xinxing Xia, Yifan Peng, Haifeng Li, Zhenrong Zheng. "United States Patent 9036003 Multi-pitching angle suspended 3D display device with 360-degree field of view"
- Yifan Peng, Guang Yang, Ke Shang. "United States Patent 9800863 Three dimensional display apparatus, display method and electronic device"

LINKS

- LinkedIn Webpage: <https://www.linkedin.com/in/yifan-evan-peng/>
- Google Scholar: <https://scholar.google.com/citations?user=UMveGGwAAAAJ&hl=en&authuser=1>
- Webpage: <http://web.stanford.edu/~evanpeng/>

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

My research interests ride across the research advances in optics/photonics, computer graphics, and computer vision. In particular, a core route is to incorporate optics and algorithms to enable new imaging modalities, including the research on building computational cameras, computational displays, VRAR solutions, etc.

LAB AFFILIATIONS

- Gordon Wetzstein, Computational Imaging Lab (11/15/2018)

Publications

PUBLICATIONS

- **Neural Holography with Camera-in-the-loop Training** *ACM TRANSACTIONS ON GRAPHICS*
Peng, Y., Choi, S., Padmanaban, N., Wetzstein, G.
2020; 39 (6)
- **Learned rotationally symmetric diffractive achromat for full-spectrum computational imaging** *OPTICA*
Dun, X., Ikoma, H., Wetzstein, G., Wang, Z., Cheng, X., Peng, Y.
2020; 7 (8): 913–22
- **End-to-end Learned, Optically Coded Super-resolution SPAD Camera** *ACM TRANSACTIONS ON GRAPHICS*
Sun, Q., Zhang, J., Dun, X., Ghanem, B., Peng, Y., Heidrich, W.
2020; 39 (2)
- **Holographic Near-Eye Displays Based on Overlap-Add Stereograms** *ACM TRANSACTIONS ON GRAPHICS*
Padmanaban, N., Peng, Y., Wetzstein, G.
2019; 38 (6)
- **Learned Large Field-of-View Imaging With Thin-Plate Optics** *ACM TRANSACTIONS ON GRAPHICS*
Peng, Y., Sun, Q., Dun, X., Wetzstein, G., Heidrich, W., Heide, F.
2019; 38 (6)
- **Wirtinger Holography for Near-Eye Displays** *ACM TRANSACTIONS ON GRAPHICS*
Chakravarthula, P., Peng, Y., Kollin, J., Fuchs, H., Heide, F.
2019; 38 (6)
- **Optical-digital joint design of refractive telescope using chromatic priors** *CHINESE OPTICS LETTERS*
Zhang, J., Nie, Y., Fu, Q., Peng, Y.
2019; 17 (5)
- **End-to-end Optimization of Optics and Image Processing for Achromatic Extended Depth of Field and Super-resolution Imaging** *ACM TRANSACTIONS ON GRAPHICS*
Sitzmann, V., Diamond, S., Peng, Y., Dun, X., Boyd, S., Heidrich, W., Heide, F., Wetzstein, G.
2018; 37 (4)
- **Focal Sweep Imaging with Multi-focal Diffractive Optics**
Peng, Y., Dun, X., Sun, Q., Heide, F., Heidrich, W., IEEE
IEEE.2018
- **Depth and Transient Imaging with Compressive SPAD Array Cameras**
Sun, Q., Dun, X., Peng, Y., Heidrich, W., IEEE
IEEE.2018: 273–82
- **Highly efficient waveguide display with space-variant volume holographic gratings** *APPLIED OPTICS*
Yu, C., Peng, Y., Zhao, Q., Li, H., Liu, X.
2017; 56 (34): 9390–97

- **Mix-and-Match Holography**
Peng, Y., Dun, X., Sun, Q., Heidrich, W.
ASSOC COMPUTING MACHINERY.2017
- **Revisiting Cross-channel Information Transfer for Chromatic Aberration Correction**
Sun, T., Peng, Y., Heidrich, W., IEEE
IEEE.2017: 3268–76
- **Encoded diffractive optics for full-spectrum computational imaging** *SCIENTIFIC REPORTS*
Heide, F., Fu, Q., Peng, Y., Heidrich, W.
2016; 6: 33543
- **The Diffractive Achromat Full Spectrum Computational Imaging with Diffractive Optics**
Peng, Y., Fu, Q., Heide, F., Heidrich, W.
ASSOC COMPUTING MACHINERY.2016
- **Grayscale performance enhancement for time-multiplexing light field rendering** *OPTICS EXPRESS*
Su, C., Zhong, Q., Peng, Y., Xu, L., Wang, R., Li, H., Liu, X.
2015; 23 (25): 32622–32
- **Computational imaging using lightweight diffractive-refractive optics** *OPTICS EXPRESS*
Peng, Y., Fu, Q., Amata, H., Su, S., Heide, F., Heidrich, W.
2015; 23 (24): 31393–407