

Pratul Srinivasan

about

Citizenship: USA

pratul@berkeley.edu

personal website

Google Scholar

programming

Python (numpy)

JAX

Tensorflow

Matlab

interests

Research problems at the intersection of computer vision, computer graphics, and machine learning. Recent work focuses on deep learning for 3D data and inverse graphics/rendering.

education and academic experience

2014-now	Ph.D. in EECS Advised by <i>Ren Ng</i> and <i>Ravi Ramamoorthi</i> . Conducting research in computer vision, computer graphics, and machine learning.	University of California at Berkeley
2010-2014	B.S.E. magna cum laude with distinction Dual Major in Biomedical Engineering and Computer Science. Conducted research in medical computer vision advised by <i>Sina Farsiu</i> .	Duke University in Durham, NC
2006-2010	High School Diploma	Henry M. Gunn High School in Palo Alto, CA

industry experience

June 2020-now	Google Research Research scientist in <i>David Salesin's</i> group.	San Francisco, CA
June 2018-Dec 2019	Google Research Research internship in computer vision and computer graphics hosted by <i>Noah Snavely</i> . Work published at CVPR 2019.	New York, NY
May 2017-Nov 2018	Google Research Research internship in computer vision and computational photography in <i>Marc Levoy's</i> team, hosted by <i>Jon Barron</i> . Work published at CVPR 2018.	Mountain View, CA

publications

Please refer to my *personal website* or my *Google Scholar page* for more details. * denotes authors with equal contribution.

- [1] B. Mildenhall*, P. P. Srinivasan*, M. Tancik*, J. T. Barron, R. Ramamoorthi, and R. Ng, "NeRF: representing scenes as neural radiance fields for view synthesis," *arXiv*, 2020.
- [2] P. P. Srinivasan*, B. Mildenhall*, M. Tancik, J. T. Barron, R. Tucker, and N. Snavely, "Lighthouse: predicting lighting volumes for spatially-coherent illumination," *IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, 2020.
- [3] M. Tancik*, P. P. Srinivasan*, B. Mildenhall*, S. Fridovich-Keil, N. Raghavan, U. Singhal, R. Ramamoorthi, J. T. Barron, and R. Ng, "Fourier features let networks learn high frequency functions in low dimensional domains," *arXiv*, 2020.
- [4] B. Mildenhall*, P. P. Srinivasan*, R. Ortiz-Cayon, N. K. Kalantari, R. Ramamoorthi, R. Ng, and A. Kar, "Local light field fusion: practical view synthesis with prescriptive sampling guidelines," *ACM Transactions on Graphics (SIGGRAPH)*, 2019.

- [5] P. P. Srinivasan, R. Tucker, J. T. Barron, R. Ramamoorthi, R. Ng, and N. Snavely, "Pushing the boundaries of view extrapolation with multiplane images," *IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, 2019.
- [6] P. P. Srinivasan, R. Garg, N. Wadhwa, R. Ng, and J. T. Barron, "Aperture supervision for monocular depth estimation," *IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, 2018.
- [7] S. A. Cholewiak, G. D. Love, P. P. Srinivasan, R. Ng, and M. S. Banks, "Chromablur: rendering chromatic eye aberration improves accommodation and realism.," *ACM Transactions on Graphics (SIGGRAPH Asia)*, 2017.
- [8] P. P. Srinivasan, R. Ng, and R. Ramamoorthi, "Light field blind motion deblurring," *IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, 2017.
- [9] P. P. Srinivasan, T. Wang, A. Sreelal, R. Ramamoorthi, and R. Ng, "Learning to synthesize a 4D RGBD light field from a single image," *IEEE International Conference on Computer Vision (ICCV)*, 2017.
- [10] M. W. Tao, P. P. Srinivasan, S. Hadap, S. Rusinkiewicz, J. Malik, and R. Ramamoorthi, "Shape estimation from shading, defocus, and correspondence using light-field angular coherence," *IEEE Transactions on Pattern Analysis and Machine Intelligence*, 2016.
- [11] P. P. Srinivasan, M. W. Tao, R. Ng, and R. Ramamoorthi, "Oriented light-field windows for scene flow," *IEEE International Conference on Computer Vision (ICCV)*, 2015.
- [12] M. W. Tao, P. P. Srinivasan, J. Malik, S. Rusinkiewicz, and R. Ramamoorthi, "Depth from shading, defocus, and correspondence using light-field angular coherence," *IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, 2015.
- [13] P. P. Srinivasan, S. J. Heflin, J. A. Izatt, V. Y. Arshavsky, and S. Farsiu, "Automatic segmentation of up to ten layer boundaries in SD-OCT images of the mouse retina with and without missing layers due to pathology," *Biomedical Optics Express*, 2014.
- [14] P. P. Srinivasan, L. A. Kim, P. S. Mettu, S. W. Cousins, G. M. Comer, J. A. Izatt, and S. Farsiu, "Fully automated detection of diabetic macular edema and dry age-related macular degeneration from optical coherence tomography images," *Biomedical Optics Express*, 2014.
- [15] J. Y. Lee, S. J. Chiu, P. P. Srinivasan, J. A. Izatt, C. A. Toth, S. Farsiu, and G. J. Jaffe, "Fully automatic software for retinal thickness in eyes with diabetic macular edema from images acquired by cirrus and spectralis systems," *Investigative Ophthalmology & Visual Science*, 2013.

awards

2015	National Science Foundation Graduate Research Fellowship	
2015	National Defense Science and Engineering Graduate Fellowship Winner	
2014	U.S. Department of Education Graduate Assistance in Areas of National Need Fellowship	UC Berkeley EECS Departmental Fellowship
2014	Howard G. Clark Memorial Award	Duke University Graduation Award
2013	Pratt School of Engineering Undergraduate Fellowship	

teaching and service

TA for CS 184/284A: Computer Graphics and Imaging (taught by Ren Ng) during Spring 2018 and Spring 2019.

Outstanding reviewer award for CVPR 2018, CVPR 2019, ICCV 2019.

UC Berkeley EECS Department PhD admissions reviewer in 2015-2016 and 2019-2020.

Reviewer for CVPR, ICCV, ECCV, SIGGRAPH, SIGGRAPH Asia, ACM TOG, IEEE PAMI, IEEE TCI, Optics Express, Eurographics, and others.