

EKTA PRASHNANI

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EDUCATION

- SEPT 2013 - Present Doctor of Philosophy, Electrical and Computer Engineering
University of California, Santa Barbara
Current research: perceptual consistency of computer vision algorithms
Research interests: computer vision, machine learning and computational photography
Advisor: Dr. Pradeep Sen, Associate Professor at UCSB
- SEPT 2013 - JUNE 2015 Master of Science, Electrical and Computer Engineering
University of California, Santa Barbara
GPA: 3.84/4
- JUNE 2009 - AUG 2013 Bachelor of Technology, Electrical Engineering, with a minor in Computer Science
Indian Institute of Technology, Gandhinagar
GPA: 8.44/10
Capstone project: Light fields for multi-perspective stereoscopy
Advisor: Nikhil Balram, Guest Professor at IIT Gandhinagar & Senior Director of Engineering for AR/VR at Google

PUBLICATIONS

- Ekta Prashnani*, Herbert Cai*, Yasamin Mostofi and Pradeep Sen, "PIEAPP: Perceptual Image-Error Assessment through Pairwise Preference", *Computer Vision and Pattern Recognition*, 2018.
- Ekta Prashnani, Maneli Noorkami, Daniel Vaquero and Pradeep Sen, "A phase-based approach for animating images using video examples", *Computer Graphics Forum*, August 2016, Volume 36, Issue 6.

INTERNSHIPS

- JUNE 2016 - SEPT 2016 Low-light image denoising using flash photography
Adobe Research, San Jose, California
Advisors: Dr. Sunil Hadap, Principal Scientist and Dr. Kalyan Sunkavalli, Research Scientist, Creative Intelligence Lab
Explored the use of flash-based relighting of images for denoising low-light versions of the same scenes.
- JUNE 2015 - SEPT 2015 3D Scene understanding for correcting image distortions (*Patent Granted*)
Ricoh Innovations Corp., Menlo Park, California
Advisors: Dr. Silvio Savarese, Associate Professor at Stanford University; Dr. Kathrin Berkner, Director of California R&D; and Dr. Jorge Moraleda, Principal Research Scientist
Developed a novel algorithm to utilize prior knowledge obtained from scene understanding for correcting common image distortions to rectify images.
- JUNE 2014 - SEPT 2014 Image animation using video examples (*Patent Pending*)
Nokia Technologies, Sunnyvale, California
Advisors: Dr. Maneli Noorkami, Senior Researcher and Dr. Daniel Vaquero, Senior Researcher
Developed a novel phase-based approach to animate natural images by imparting gentle motion to objects using a similar video example provided by the user.

MAY 2012 - Text detection for visual search technology (*Patent Granted*)
AUG 2012 Ricoh Innovations Pvt. Ltd., Bengaluru, India
Advisor: Dr. Kaushik Pavani, Research Scientist
Developed a text detection method for natural images, invariant to scale, rotation, translation and perspective distortion.

PATENTS (GRANTED AND PENDING)

FEB 2018 Single Image Rectification
Inventors: Jorge Moraleda, Ekta Prashnani, Michael J. Gormish, Kathrin Berkner, Silvio Savarese
Patent number: US9904990B2

JUL 2016 Methods and apparatus for processing motion information images (*pending*)
Inventors: Ekta Prashnani, Maneli Noorkami, Daniel Andre Vaquero
Publication number: WO2016108847A1

MAY 2015 Local Scale, Rotation and Position Invariant Word Detection for Optical Character Recognition
Inventors: Sri-Kaushik Pavani, Ekta Prashnani
Patent number: US9025877B2

AWARDS

MAY 2018 Outstanding Teaching Assistant (Dept. of Electrical and Computer Engg. at UCSB)
APR 2018 Google Travel Award for CVPR2018
DEC 2017 Semi-finalist for Qualcomm Innovation Fellowship
SEPT 2017 AI Grant Fellowship
DEC 2015 Harold Frank scholarship at UCSB
AUG 2013 Dean's list for academic excellence at IIT Gandhinagar
JULY 2012 Excellence in the internship at Ricoh Innovations Pvt. Ltd.
APR 2010 Underwriters Laboratories research award for national fire data analysis

TEACHING

JULY 2017 - Teaching assistant: capstone projects (electrical engineering)
Present Responsible for providing technical mentorship to senior undergraduate capstone projects related to computer vision, machine learning, electronics, embedded systems and signal processing.

JULY 2017 - Research mentor for high school students (UCSB Research Mentorship Program)
AUG 2017 Taught concepts of computer vision and machine learning to four high school seniors; designed and mentored their summer research projects involving deep learning for object detection and image restoration.

SEPT 2016 - Teaching assistant: capstone projects (electrical engineering)
MAY 2017 Provided technical mentorship to senior undergraduate capstone projects in the field of computer vision and machine learning (one team secured the *Best Technical Capstone project* award for their project on image super-resolution).

TECHNICAL SKILLS

C++, MATLAB, Python, PyTorch, Caffe, OpenCV, Tensorflow