# EKTA PRASHNANI

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## **EDUCATION**

present Doctor of Philosophy, Electrical and Computer Engineering

University of California, Santa Barbara

Current research: perceptual consistency of computer vision algorithms

Advisor: Dr. Pradeep Sen, Associate Professor at UCSB

JUNE 2015 Master of Science, Electrical and Computer Engineering

University of California, Santa Barbara

GPA: 3.84/4

Aug 2013 Bachelor of Technology, Electrical Engineering, with

a minor in Computer Science

Indian Institute of Technology, Gadhinagar

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 - Low-light image denoising using flash photography

SEPT 2016 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 ver-

sions of the same scenes.

JUNE 2015 - 3D Scene understanding for correcting image distortions (Patent Granted)

SEPT 2015 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 understand-

ing for correcting common image distortions to rectify images.

June 2014 - Image animation using video examples (Patent Pending)

SEPT 2014 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, transla-

tion and perspective distortion.

### **PATENTS**

FEB 2018 Single Image Rectification

Inventors: Jorge Moraleda, Ekta Prashnani, Michael J. Gormish, Kathrin Berkner,

Silvio Savarese

Patent number: US9904990B2

JULY 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 Charac-

ter Recognition

Inventors: Sri-Kaushik Pavani, Ekta Prashnani

Patent number: US9025877B2

#### **AWARDS**

MAY 2018	Outstanding	g Teaching	Assistant (	Dept.	of Electrical and	Computer E	ngg. at UCSB)	
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APR 2018 Google Travel Grant for CVPR2018

DEC 2017 Semi-finalist for Qualcomm Innovation Fellowship

SEPT 2017 Al Grant Fellowship

DEC 2015 Harold Frank scholarship at UCSB

Aug 2013 Dean's list for academic excellence at IIT Gandhinagar

### **TEACHING**

JULY 2017 - Teaching assistant: capstone projects (electrical engineering)

MAY 2018 Provided technical mentorship to senior undergraduate capstone projects, par-

ticularly for computer vision, machine learning and signal processing (a team I mentored for medical imaging was chosen to present at UCSB's Engineering

Design Expo, 2018).

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