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: Prof. Pradeep Sen

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, Gandhinagar
GPA: 8.44/10
Capstone project: Light fields for multi-perspective stereoscopy
Advisor: Nikhil Balram, Guest Professor at IIT Gandhinagar & Head of Display R&D 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, and Dr. Kalyan Sunkavalli, 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 geometric distortions (*Patent Granted*)
Ricoh Innovations Corp., Menlo Park, California
Advisors: Dr. Silvio Savarese, Dr. Kathrin Berkner, and Dr. Jorge Moraleda
Developed a novel algorithm to utilize prior knowledge obtained from scene understanding to rectify single images.

June 2014 - Sept 2014 Image animation using video examples (*Patent Pending*)
Nokia Technologies, Sunnyvale, California
Advisors: Dr. Maneli Noorkami, and Dr. Daniel Vaquero
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 - Aug 2013 Text detection for visual search technology (*Patent Granted*)
Ricoh Innovations Pvt. Ltd., Bengaluru, India
Advisor: Dr. Kaushik Pavani
Developed a text detection method for natural images, invariant to scale, rotation, translation 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 Character Recognition
Inventors: Sri-Kaushik Pavani, Ekta Prashnani
Patent number: US9025877B2

Awards

Jul 2019 USD 80,000 grant on Google Cloud Platform (Google Cloud for Startups, Surge)
May 2019 Outstanding Teaching Assistant (Dept. of Electrical and Computer Engg. at UCSB)
May 2018 Outstanding Teaching Assistant (Dept. of Electrical and Computer Engg. at UCSB)
Apr 2018 Google Travel Grant for CVPR2018
Dec 2017 Semi-finalist for Qualcomm Innovation Fellowship
Sept 2017 AI Grant Fellowship (USD 20,000 on Google Cloud Platform)
Dec 2015 Harold Frank scholarship at UCSB
Aug 2013 Dean's list for academic excellence at IIT Gandhinagar

Teaching

Sept 2018 - June 2019 Teaching assistant: capstone projects (electrical engineering)

Sept 2017 - June 2018 Teaching assistant: capstone projects (electrical engineering)
Provided technical mentorship to senior undergraduate capstone projects, particularly 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 - Aug 2017 Research mentor for high school students (UCSB Research Mentorship Program)
Designed and mentored summer research projects for four high-school students involving deep learning for object detection and image restoration.

Sept 2016 - June 2017 Teaching assistant: capstone projects (electrical engineering)
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).

References

Prof. Pradeep Sen: psen@ece.ucsb.edu (Assoc. Professor, Dept. of Electrical and Computer Engineering)
Prof. Matthew Turk: mturk@cs.ucsb.edu (Professor and Chair, Dept. of Computer Science)
Prof. Ilan Ben-Yaacov: ilan@ece.ucsb.edu (Lecturer, Dept. of Electrical and Computer Engineering)

Professional Services

Reviewer for Transactions on Image Processing, NeurIPS SVRHM workshop