Deepti Ghadiyaram

39727 Fog Shrew Rd, Newark, CA 94560   **Mobile:** (512)-949-9169

Google Scholar Profile   LinkedIn   **Email:** deeptigp9@gmail.com

Education

Ph.D in Computer Science (Aug. 2013 - Aug. 2017)
University of Texas at Austin
Advisor:*Prof. Alan Bovik*

Masters of Science in Computer Science (Aug. 2011 - May 2013)   **CGPA: 3.9/4.0**
University of Texas at Austin

Bachelor of Technology (Hons.) in Computer Science (May 2009)   **CGPA: 9.0/10.0**
International Institute Of Information Technology

Research Interests

Computer vision, video and image understanding, video action recognition, object classification.
Perceptual image and video quality and their applications to users' quality of experience.
Image and video processing, machine learning, and deep learning.

Professional Experience and Research

Facebook	Oct. 2017 - present
Research Scientist	
Google	May 2016 - Aug 2016
Software Engineering Intern	
Microsoft Research	May 2015 - Aug 2015
Research Intern	
Symphony Commerce	May 2013 - Aug 2013
Software Developer Intern	
LinkedIn	May 2012 - Aug 2012
Software Engineer Intern	
Laboratory for Image and Video Engineering, University of Texas at Austin	Jan 2013 onwards
Graduate Research Assistant and Assistant Director	
Texas Advanced Computing Center, University of Texas at Austin	Sep 2011 - Dec 2012
Graduate Research Assistant	

Programming Skills

C, C++, Matlab, Python (proficient)   **Deep learning libraries:** Caffe, Tensorflow.

HIVE, SQL using MSSQL 2008, HTML, Javascript (prior experience)

Professional Service Activity

Program Committee Member	AAAI-20
Area Chair	WiML'20, CVPR'21
Journal Reviewer	IEEE Trans. of Image Proc. *2013 -* , IEEE Trans. on Multimedia *2016 -* , Elec. Letters *2016 -* IEEE Trans. on Circuits and Syst. for Video Tech. *2015 -*, Digital Signal Proc. *2015 -* EURASIP J. on Image and Video Proc. *2015 -* , J. of Selected Topics in Signal Proc. *2015 -*
Conference Reviewer	CVPR *2020 -*, AAAI *2020 -*, WiML *2019 -*, ACM SIGGRAPH *2017 -*, Indian Conf. on Comp. Vision, Graphics and Image Process.(ICVGIP) *2014 -*

Leadership Experience

- I was the **assistant director** of **LIVE** from $2013 - 2017$ and I attended to the hardware and software needs of LIVE members, managed our website, publicly-available databases, and software. I organized weekly meetings and purchased and maintained our existing infrastructure (e.g., computers, cinematic cameras, eye tracking and stereoscopic systems).
- I was the **co-founder** of **Team Samvedana**, an online social platform connecting over 400 NGOs, volunteers, and donors. I built its operating model and grew the team organically in 2008.

Awards and Achievements

- Recipient of Graduate Recruitment Fellowship offered to those who rank in the top 10% of all students by the Department of Computer Science for the academic years 2013-2016.
- Recipient of Grace Hopper Celebration Scholarship Grant for the academic year 2014.
- Recipient of the *MCD fellowship* offered by UT-Austin for the academic year 2013-14.
- Selected as one of the 90 young leaders across the globe for *Starting Bloc Fellowship* in 2013.

- Received a *one-of-a-kind* award for my community services both within and outside of IIIT.
- Selected as one of the 7 delegates from all over India to represent Indian Engineering by the **Ministry of Youth Affairs and Sports**, Gov. of India at Singapore as part of a cultural exchange program between India and Singapore, July 2008
- Included in the Dean's List, for the years 2005 - 2009 for excellence in academic performance in IIIT.
- One of the finalists for Google India Women in Engineering Award, 2008.

Publications (Updated list here)

Book Chapters

- **D. Ghadiyaram**, T. Goodall, L. K. Choi, and A. C. Bovik, "Perceptual Image and Video Quality," *Encyc. Img. Proc.*
- L. K. Choi, T. Goodall, **D. Ghadiyaram**, and A. C. Bovik, "Perceptual Image Enhancement," *Encyc. Img. Proc.*

Patents

- A. Bovik, **D. Ghadiyaram**, and J. Pan, "Predicting a Viewer's Quality of Experience," US Patent 20,170,085,617, 2017.

Journals

- J. Kim, H. Zeng, **D. Ghadiyaram**, S. Lee, L. Zhang, and A.C. Bovik, "Deep Convolutional Neural Models for Picture Quality Prediction," *IEEE Sig. Proc. Magazine*, Nov. 2017.
- **D. Ghadiyaram**, J. Pan, and A. C. Bovik, "Learning a Continuous-Time Streaming Video QoE Model," *IEEE Trans. Image Proc.*, vol. 27, no. 5, pp 2257 - 2271, Jan. 2018.
- **D. Ghadiyaram**, J. Pan, and A. C. Bovik, "A Subjective and Objective Study of Stalling Events in Mobile Streaming Videos," *IEEE Trans. Circ. and Syst. for Video Tech.*, Oct. 2017.
- **D. Ghadiyaram**, J. Pan, A. C. Bovik, A. K. Moorthy, P. Panda, and K. C. Yang, "In-capture Mobile Video Distortions: A Study of Subjective Behavior and Objective Algorithms," *IEEE Trans. Circ. and Syst. for Video Tech.*, May 2017.
- D. Kundu, **D. Ghadiyaram**, A. C. Bovik, and B. L. Evans, "No-Reference Quality Assessment of High Dynamic Range Pictures," *IEEE Trans. Img. Proc.*, Mar. 2017.
- D. Kundu, **D. Ghadiyaram**, A. C. Bovik, and B. L. Evans, "Large-scale Crowdsourced Study for High Dynamic Range Pictures," *IEEE Trans. Img. Proc.*, vol. 26, no. 10, pp 4725-4740, June 2017.
- **D. Ghadiyaram** and A. C. Bovik, "Perceptual Quality Prediction on Authentically Distorted Images Using a Bag of Features Approach," *J. of Vision.* vol. 17, no. 32, Jan. 2017.
- **D. Ghadiyaram** and A. C. Bovik, "Massive Online Crowdsourced Study of Subjective and Objective Picture Quality," *IEEE Trans. Img. Proc.* vol. 25, no. 1, Jan. 2016.

Conference Proceedings

- K. K. Singh, D. Mahajan, K. Grauman, Y. J. Lee, M. Feiszli, and **D. Ghadiyaram**, "Don't Judge an Object by Its Context: Learning to Overcome Contextual Bias," https://arxiv.org/pdf/2001.03152.pdf, 2020.
- Z. Ying, H. Niu, P. Gupta, D. Mahajan, **D. Ghadiyaram**, and A. Bovik, "From Patches to Pictures (PaQ-2-PiQ): Mapping the Perceptual Space of Picture Quality," https://arxiv.org/pdf/1912.10088.pdf, 2020.
- X. Yan, I. Misra, A. Gupta, **D. Ghadiyaram**, and D. Mahajan, "ClusterFit: Improving Generalization of Visual Representations," https://arxiv.org/pdf/1912.03330.pdf, 2020.
- **D. Ghadiyaram**, M. Feiszli, D. Tran, X. Yan, H. Wang, and D. Mahajan, "Large-scale weakly-supervised pre-training for video action recognition," *CVPR*, Long Beach, June 16 - 20, 2019.
- Z. Yang, D. Mahajan, **D. Ghadiyaram**, R. Nevatia, V. Ramanathan, "Activity Driven Weakly Supervised Object Detection," *CVPR*, Long Beach, June 16 - 20, 2019.
- B. Xiong, Y. Kalantidis, **D. Ghadiyaram**, and K. Grauman, "Less is More: Learning Highlight Detection from Video Duration," *CVPR*, Long Beach, June 16 - 20, 2019.
- **D. Ghadiyaram**, C. Chen, S. Inguva, and A. Kokaram, "A No-Reference Video Quality Predictor for Compression and Scaling Artifacts," *IEEE Int. Conf. Image Proc.*, Beijing, Sept. 17-20, 2017.
- **D. Ghadiyaram** , J. Pan, A. C. Bovik, A. K. Moorthy, P. Panda, and K. C. Yang, "Subjective and Objective Quality Assessment of Mobile Videos with In-Capture Distortions," *Int. Conf. on Acoustics, Speech, and Sig. Proc.*, New Orleans, March 5-9th, 2017.
- D. Kundu, **D. Ghadiyaram**, A. C. Bovik, and B. L. Evans, "No-reference Image Quality Assessment for High Dynamic Range Images," *Proc. Asilomar Conf. on Sig., Syst. and Comput.,* Nov. 2016.
- **D. Ghadiyaram** and A. C. Bovik, "Scene Statistics of Authentically Distorted Images in Perceptually Relevant Color Spaces for Blind Image Quality Assessment," *IEEE Int. Conf. Image Proc.* , Sept. 2015.
- **D. Ghadiyaram**, J. Pan, and A. C. Bovik, "A time-varying subjective quality model for mobile streaming videos with stalling events," *In Proc. SPIE Optical Engg. + App.*, Aug. 2015.
- **D. Ghadiyaram** and A. C. Bovik, "Feature Maps Driven No-Reference Image Quality Prediction of Naturally Distorted Images," *In Proc. SPIE Conf. Human Vision and Electronic Imaging,* San Francisco, CA, Feb 9 - 12, 2015.
- **D. Ghadiyaram** and A. C. Bovik, "Blind Image Quality Assessment on Real Distorted Images using Deep Belief Nets," *IEEE Global Conf. on Signal and Information Proc.*, Atlanta, Dec. 2014.

- **D. Ghadiyaram**, A.C. Bovik, H. Yeganeh, R. Kordasiewicz, and M. Gallant, "Study of the effects of stalling events on the Quality of Experience of mobile streaming videos," *IEEE Global Conf. on Signal and Information Proc.*, Dec. 2014.
- **D. Ghadiyaram** and A. C. Bovik, "Crowdsourcing Study of Subjective Image Quality," *Asilomar Conf. Signals, Systems, and Computers*, Pacific Grove, CA, Nov 2 - 5, 2014.
- H. Yeganeh, R. Kordasiewicz, M. Gallant, **D. Ghadiyaram**, and A. C. Bovik, "Delivery quality score model for internet video," *IEEE Int. Conf. Image Proc.*, Paris, Oct 27 - 30, 2014.
- **D. Ghadiyaram** and A. C. Bovik, "Online Crowdsourcing of Subjective Quality Assessment of Images," *J. of Vision*, vol. 14, no. 10, 2014.
- **D. Ghadiyaram**, M. V. Borker, and J. Sivaswamy, "Impulse Noise Removal from Color Images with Hopfield Neural Network and Improved Vector Median Filter," *Indian Conference on Computer Vision Graphics & Image Processing, 2008.*

Technical Reports

- **D. Ghadiyaram**, N. Joshi, and A. Kapoor, "Selectively Deep Neural Networks at Runtime," Technical Report, 2016.