Ishan Misra

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Education

Carnegie Mellon University USA ● PhD in Robotics, Aug, 2014 - Present
● Advisor: Professor Martial Hebert

Carnegie Mellon University USA ● Masters in Robotics, Aug, 2012-May 2014
Cumulative QPA: 4.08 ● Advisor: Professor Martial Hebert

IIIT-Hyderabad India ● Bachelor of Technology in Computer Science and Engineering, 2012
Cumulative GPA: 9.81/10.00 (Rank 1 of 150) ● Advisor: Professor P J Narayanan

Research Interest

- **Computer Vision and Machine Learning**: Scene Understanding, Large-scale Learning, Learning with Limited Supervision
- **Artificial Intelligence and Robotics**: Data-driven reasoning

Publications

- Shuffle and Learn: Unsupervised Learning using Temporal Order Verification - Ishan Misra, C. Lawrence Zitnick, Martial Hebert, **ECCV 2016**
- Seeing through the Human Reporting Bias: Visual Classifiers from Noisy Human-Centric Labels - Ishan Misra, C. Lawrence Zitnick, Meg Mitchell, Ross Girshick, **CVPR 2016**
- Cross-stitch Networks for Multi-Task Learning - Ishan Misra*, Abhinav Shrivastava*, Abhinav Gupta, Martial Hebert, **CVPR 2016**
- Generating Natural Questions About an Image - Nasrin Mostafazadeh, Ishan Misra, Jacob Devlin et al., **ACL 2016**
- Visual StoryTelling - Ting-Hao Huang, Francis Ferraro, Nasrin Mostafazadeh, Ishan Misra, Jacob Devlin et al., **NAACL 2016**
- Learning object models from few examples - Ishan Misra, Yuxiong Wang, Martial Hebert, **SPIE Unmanned Systems Tech. 2016**
- Watch and Learn: Semi-Supervised Learning of Object Detectors from Videos - Ishan Misra, Abhinav Shrivastava, Martial Hebert, **CVPR 2015**
- Applying artificial vision models to human scene understanding - Elissa Aminoff et al., **Journal of Frontiers in Computational Neuroscience 2015**
- Data-driven Exemplar Model Selection - Ishan Misra, Abhinav Shrivastava, Martial Hebert, **WACV 2014** (Best Student Paper)
- HOG and Spatial Convolution on SIMD Architecture - Ishan Misra, Abhinav Shrivastava, Martial Hebert, **Tech Report, 2013**
- Using Org-mode and Subversion for Managing and Publishing Content in Computer Science Courses - Sankalp Khare, Ishan Misra, Venkatesh Choppella, **IEEE International Conference on Technology for Education (T4E), 2012**
- CPU and/or GPU: Revisiting the GPU Vs. CPU Myth - Kishore Kothapalli et al., **arXiv, 2013**
- Hybrid Implementation of Error Diffusion Dithering - Aditya Deshpande, Ishan Misra, P J Narayanan, **IEEE HiPC, 2011**

Research Internships

Microsoft Research, Redmond (2015)   Advisor: Ross Girshick, Larry Zitnick, Meg Mitchell
Primarily worked on learning from large scale web data using noisy labels and developed a system that can learn to label like a machine or a human by just using noisy human labels. Also contributed on projects involving language generation and visual storytelling.

Microsoft Research, Redmond (2014)   Advisor: Xian-Sheng Hua
Worked on Large scale weakly supervised image classification. Designed meaningful and scalable patch-based image features which used webly supervised data. Improved the classification performance over base Convolutional Neural Network based system.

INRIA/Ecole Centrale Paris, France (2012)   Advisor: Professor Iasonas Kokkinos
My work focused on using shading cues (based on classical techniques like Shape From Shading, Photometric Stereo) and using them on images from an object category taken in general unknown illumination.

Yale University, USA (2011)   Advisor: Bryan Ford
Worked on the **Determinator Operating System** to detect physical memory on systems, boot loaders for USB booting, porting from x86 to x64.

Awards

- Best Student Paper Award at IEEE WACV 2014
- Siebel Scholar, Class of 2014 awarded to 85 top students from the world's leading graduate schools.
- National Talent Search Scholarship (awarded to 1000 students all over India) (2006-2012)
- IIIT-H Gold Medals for Highest CGPA in the graduating batch and in Computer Science(2012)
- IIIT-H All Round Achievement Award for Contribution in cultural, sports and academic life (2012)
- IIIT-H Dean's Academic List of Excellence (2008-2012)

References

Available on request.