

Jong-Chyi Su

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Research Interests

Computer Vision, Image Recognition, Machine Learning, Domain Adaptation

Education

Ph.D. Student, Computer Science, University of Massachusetts, Amherst Sep. 2015 - Present
M.S., Computer Science, University of California, San Diego Sep. 2013 - Jun. 2015
B.S., Electrical Engineering, National Taiwan University Sep. 2008 - Jun. 2012

Publications

- [1] **Reasoning about Fine-grained Attribute Phrases using Reference Games**
Jong-Chyi Su*, Chenyun Wu*, Huaizu Jiang, Subhransu Maji
International Conference on Computer Vision (ICCV), 2017
- [2] **Adapting Models to Signal Degradation using Distillation**
Jong-Chyi Su, Subhransu Maji
British Machine Vision Conference (BMVC), 2017
- [3] **Depth Estimation and Specular Removal for Glossy Surfaces Using Point and Line Consistency with Light-Field Cameras**
Michael Tao, Jong-Chyi Su, Ting-Chun Wang, Jitendra Malik, and Ravi Ramamoorthi
IEEE Transactions on Pattern Analysis and Machine Intelligence (PAMI), Volume 38 Issue 6, June 2016.

Research Experience

Domain Adaptation through Distillation Sep. 2015 - Present
Dr. Subhransu Maji, University of Massachusetts, Amherst

- Proposed a technique for training CNNs to enhance recognition accuracy on low-quality data through distillation.
- Our result outperformed other domain adaptation methods on various fine-grained recognition datasets.

Depth Estimation for Glossy Surfaces with Light-Field Cameras Jul. 2014 - Apr. 2015
Dr. Ravi Ramamoorthi, University of California, San Diego

- Designed a novel algorithm to separate specular and diffuse regions, and estimate the light source color for light-field images gathering from Lytro camera.
- Developed a program that removes specular component for glossy surfaces, and improves the result of depth estimation by feeding diffuse-only images into a depth estimation algorithm.

Work Experience

Applied Scientist Intern, AWS Deep Learning Team Jun. 2017 - Aug. 2017

Research Assistant, UMass-Amherst Sep. 2015 - Present

- Worked with Dr. Subhransu Maji on fine-grained recognition, segmentation, and domain adaptation problems using deep learning.

- Research Assistant**, UCSD Jul. 2014 - Dec. 2014
- Worked with Dr. Ravi Ramamoorthi on depth estimation for glossy surfaces with light-field cameras.
- Research Assistant**, Rady School of Management, UCSD Mar. 2014 - Apr. 2014
- Worked with Dr. Hyoduk Shin to help solve an optimization problem about the pricing strategy for supply chain.
- System Engineer Intern**, Synaptics, Inc., Taipei Jul. 2011 - Aug. 2011
- Designed algorithms to improve the performance of touch panel on mobile phones in noisy environment.

Teaching Experience

- Teaching Assistant**, UCSD
- CSE 140, Components and Design Techniques for Digital Systems Spring 2015
 - CSE 250B, Machine Learning Winter 2015
 - CSE 150, Introduction to Artificial Intelligence Summer 2014
 - CSE 140, Components and Design Techniques for Digital Systems Spring 2014

Awards

- MS Research Initiation Awards, CSE Department, UCSD Jul. 2014 - Sep. 2014
- Best Student Paper Award, *IEEE Global Conference on Consumer Electronics* Oct. 2012