

Jong-Chyi Su

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Research Interests

My research focuses on building robust machine perception models with limited labeled training data. My previous projects include using self-supervised and semi-supervised learning methods to improve few-shot learning on realistic fine-grained classification datasets, and transfer learning and domain adaptation problems.

Education

Ph.D. Candidate, 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

Preprint

[1] **Unsupervised Discovery of Object Landmarks via Contrastive Learning**
Zezhou Cheng, **Jong-Chyi Su**, Subhransu Maji
arXiv preprint arXiv:2006.14787, 2020.

[2] **Semi-Supervised Fine-Grained Recognition Challenge at FGVC7**
Jong-Chyi Su, Subhransu Maji
arXiv coming soon.

Conferences

[1] **When Does Self-supervision Improve Few-shot Learning?**
Jong-Chyi Su, Subhransu Maji, Bharath Hariharan
European Conference on Computer Vision (ECCV), 2020.

[2] **Active Adversarial Domain Adaptation**
Jong-Chyi Su, Yi-Hsuan Tsai, Kihyuk Sohn, Buyu Liu, Subhransu Maji, Manmohan Chandraker
Winter Conference on Applications of Computer Vision (WACV), 2020.

[3] **A Deeper Look at 3D Shape Classifiers**
Jong-Chyi Su, Matheus Gadelha, Rui Wang, Subhransu Maji
Second Workshop on 3D Reconstruction Meets Semantics at ECCV, 2018

[4] **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

[5] **Adapting Models to Signal Degradation using Distillation**
Jong-Chyi Su, Subhransu Maji
British Machine Vision Conference (BMVC), 2017

Journal

[1] **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.

Work Experience

Computer Vision Lab, UMass-Amherst

Research Assistant, **Supervisor: Subhransu Maji**

fine-grained recognition, domain adaptation, few-shot learning, vision and language

Amherst, MA
Sep. 2015 - Present

Facebook AI

Research Intern, **Supervisor: Omkar Parkhi, Tamara Berg**

AI commerce team

Remote
Jun. 2020 - Aug. 2020

NEC Labs America Media Analytics Team

Summer Research Assistant, **Supervisor: Yi-Hsuan Tsai, Manmohan Chandraker**

domain adaptation, object detection, active learning

Cupertino, CA
Jun. 2018 - Aug. 2018

AWS Deep Learning Team

Applied Scientist Intern, **Supervisor: R. Manmatha, Deva Ramanan**

image translation with generative adversarial networks and nearest neighbor search.

Palo Alto, CA
Jun. 2017 - Aug. 2017

Computer Vision Lab, UCSD

Research Assistant, **Supervisor: Ravi Ramamoorthi**

depth estimation for images from light field cameras.

San Diego, CA
Jul. 2014 - Dec. 2014

Teaching Experience

Teaching Assistant, UMass-Amherst

- COMPSCI 682, Neural Networks: A Modern Introduction

Amherst, MA
Spring 2018, Fall 2018, Fall 2020

Teaching Assistant, UCSD

- CSE 250B, Machine Learning
- CSE 150, Introduction to Artificial Intelligence
- CSE 140, Components and Design Techniques for Digital Systems

San Diego, CA
Winter 2015
Summer 2014
Spring 2014, Spring 2015

Professional activities

Journal Reviewer: PAMI, IJCV, IROS

Conference Reviewer: CVPR, ICCV, ECCV, ACCV, WACV (since 2018)

Outstanding Reviewer: CVPR 2018

Skills and Languages

Programming Languages: Python, Matlab, C/C++

Tools: PyTorch, Tensorflow, MXNet, Matconvnet

Languages: proficient in English and Chinese