Hang Su

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OBJECTIVE Internship - 2016 Summer

EDUCATION

Ph.D. candidate, Computer Science, GPA 3.94 — September 2013 - Present
UMass Amherst — Amherst, MA
- Co-advisors: Prof. Erik Learned-Miller, Prof. Subhransu Maji
- Research intersts: My current research focuses primarily on applying deep neural networks for (1) recognizing 3D shapes and (2) learning motion representations for videos.

Sc.M., Computer Science, GPA 3.75 — September 2011 - May 2013
Brown University — Providence, RI
- Advisor: Prof. James Hays

B.S., Intelligence Science & Technology, GPA 3.5 — September 2007 - July 2011
Peking University — Beijing, China
- Double Major in Statistics

WORK EXPERIENCE

Research Assistant — Fall 2014 - Present
Pixel Forensics, Inc. & UMass Amherst — Amherst, MA
- As part of a collaboration with Pixel Forensics, Inc., we are exploring novel approaches, such as deep networks and texture attributes, for content-based image retrieval.

Machine Learning Intern — Summer 2012
eHarmony, Inc. — Santa Monica, CA
- Implemented a DPM-based face detection system (`http://db.tt/OnpHfkfs`) and explored facial features for predicting communication behaviors among subscribers. The face detection system achieved 0.95 recall and 0.90 precision on eHarmony's user profile photos.
- Developed a photo quality assessment system for user profile photos. It combined traditional image quality criteria, such as noise level, aspect ratio and image size, with novel content-based criteria including skin smoothness, composition and bokeh.

Summer Intern — Summer 2010
Chinese Academy of Science — Shenzhen, China
- Project: "Indoor Scene Segmentation Based on Manhattan-world Assumption"

OTHER PROJECTS

Scene parsing using scene attributes as global features — Spring 2013
Master's Degree Project
- 102 scene attributes were learned from a large-scale database. Together with standard local features, the 102-D attribute-based scene representation achieved state-of-the-art performance in scene parsing while being much smaller in size than traditional features.

Defocus estimation and its application in photo quality assessment — Spring 2012
Final project in course "Data-driven Vision and Graphics"
- Surveyed various methods for photo defocus estimation. Trained a photo quality model that achieved state-of-the-art performance.

Front vechicle detection using onboard camera — Spring 2011
Undergraduate Thesis
- Nearby vehicles were detected and tracked in real-time using HOG feature and optical flow.

PUBLICATION

- **"Multi-View Convolutional Neural Networks for 3D Shape Recognition"**, Hang Su, Subhransu Maji, Evangelos Kalogerakis, Erik Learned-Miller. In *IEEE Conference on Computer Vision (ICCV)*, 2015.
- **"The SUN Attribute Database: Beyond Categories for Deeper Scene Understanding"**, Genevieve Patterson, Chen Xu, Hang Su, James Hays. In *International Journal of Computer Vision*, January 2014 (doi: 10.1007/s11263-013-0695-z).

SKILLS

- Proficient in C, C++, Matlab, HTML, SQL
- Course project experience with Java, C#, Python, PHP, Javascript