

Qing SUN

PERSONAL DATA

PLACE AND DATE OF BIRTH: Tianjin, China | 31 August 1987
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WORK EXPERIENCE

SEP 2016 - PRESENT	Intern @ Institute of Deep Learning, Baidu Research, USA <ul style="list-style-type: none">• One Shot Visual Question Answering (Learning to learn)
AUG 2013 - PRESENT	Research Assistant @ Machine Learning & Perception Lab (Advisor: Dhruv Batra), Virginia Tech, USA <ul style="list-style-type: none">• Inference in Bidirectional RNNs (CVPR 2017)• Submodular function maximization in computer vision problems (SubmodBox, NIPS 2015)• Produce diverse outputs from structured probabilistic models (Active Learning + DivMBest, CVPR 2015)
AUG 2012 - AUG 2013	Research Assistant @ CBIL, Virginia Tech, USA <ul style="list-style-type: none">• Risk markers and interaction loci detection on Myocardial Infarction and lupus erythematosus (AIM, logistic regression)
SEP 2009 - JAN 2012	Research Assistant @ TJU (Advisor: Huaxiang Wang), China <ul style="list-style-type: none">• Pulmonary signal separation (MWPCA)• Dielectric property and representation method of human vivo tissue• Hard wire circuit design and Finite element analysis on Mesh Wire sensor (PROTEL, COMSOL)

EDUCATION

PRESENT	Ph.D. Candidate, Virginia Tech, USA
JAN 2012	M.S., Tianjin University, China Thesis: Image Reconstruction Algorithm Research based on Electrical Tomography Advisor: Prof. Huaxiang WANG (Excellent Master Thesis Award)
JUL 2009	B.S., Tianjin University, China Thesis: 3D Model Simulation and Forward Problem Research on Bio-EIT Advisor: Prof. Huaxiang WANG
JUL 2009	B.A., Nankai University, China

PUBLICATIONS

Journal Articles

- **Qing Sun**, Huaxiang Wang. Optimization Design of a New Wire-Mesh Sensor. *Chinese Journal of Sensors and Actuators*, 2010

Peer-reviewed Conference Papers (acceptance rate typically 2%-25%)

- **Qing Sun**, Stefan Lee, Dhruv Batra. Fill-in-the-Blank Image Captioning with Bidirectional Beam Search. *Computer Vision and Pattern Recognition (CVPR) 2017*
- Ashwin K Vijayakumar, Michael Cogswell, Ramprasath R. Selvaraju, **Qing Sun**, Stefan Lee, David Crandall, Dhruv Batra. Diverse Beam Search: Decoding Diverse Solutions from Neural Sequence Models. <https://arxiv.org/abs/1610.02424>, 2016
- **Qing Sun**, Dhruv Batra. SubmodBoxes: Near-Optimal Search for a Set of Diverse Object Proposals. *Neural Information Processing Systems (NIPS) 2015*
- **Qing Sun**, Ankit Laddha, Dhruv Batra. Active Learning for Structured Probabilistic Models with Histogram Approximation. *Computer Vision and Pattern Recognition (CVPR) 2015* (oral, accept rate: 3.3%)
- **Qing Sun**, Huaxiang Wang. Mesh wire tomography combined with a modified sensitivity map. *IST 2011* (oral)

Workshop Papers

- **Qing Sun**, Dhruv Batra. Beam Search Message Passing in Bidirectional RNNs: Applications to Fill-in-the-Blank Image Captioning. Deep Learning Summer School, Montreal, 2016. (contributed talk)
- **Qing Sun**, Dhruv Batra. Near Optimal Bounding Box Search. *Mid Atlantic Computer Vision (MACV) 2015*
- **Qing Sun**, Ankit Laddha, Dhruv Batra. Active Learning for Structured Probabilistic Models. *Workshop on Scene Understanding (SUNw), CVPR, 2014*
- **Qing Sun**, Ankit Laddha, Dhruv Batra. Active Learning in Structured Probabilistic Models with Deterministic Samples. *Mid Atlantic Computer Vision (MACV) 2014* (oral)

TALKS(NOT INCLUDING CONFERENCE PRESENTATIONS)

- Bayesian Neural Network. Fall 2015: ECE 6504. <https://computing.ece.vt.edu/~f15ece6504/>

PROJECTS

- Understanding Predictions of Structured Probabilistic Vision Systems. Course Project advised by Dr. Dhruv Batra.

TEACHING

- Fall 2013: ECE 4984/5984: Introduction to Machine Learning & Perception (Teaching Assistant, Instructor: Dhruv Batra)
- Spring 2015: ECE 5984: Introduction to Machine Learning (Teaching Assistant, Instructor: Dhruv Batra)

PROFESSIONAL SERVICE ACTIVITIES

Conference / Journal reviewers

- NIPS 2016, ECCV 2016, CVPR 2017, ICCV 2017, NIPS 2017
- Statistics and Probability Letters 2015

PROGRAMMING LANGUAGE

- C/C++, Python, Matlab, Lua
- Packages: Caffe, Torch, Tensorflow, PaddlePaddle

HONORS & AWARDS

- 2010, First class Siemens Endowed Scholarship
- 2010, 2007, School-level merit student, First class scholarship
- 2009, Excellent graduate for superior academic performance
- 2008, 2006, Colledge-level merit student, Second class scholarship
- 2007, First class TURCK Endowed Scholarship