

Yao Qin

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Research Interests

My research interests are in **Deep Learning** and **Computer Vision**. I am especially interested in applying deep learning to deal with problems in computer vision. Also, I am interested in using recurrent neural networks for time series prediction. Recently, I am doing research on semantic segmentation and time series prediction.

Education

University of California, San Diego *2015 - Present*
Ph.D student, Department of Computer Science and Engineering

Dalian University of Technology *2011 - 2015*
Bachelor of Science, Department of Communication Engineering

Publications

Y. Qin, D. Song, H. Chen, W. Cheng, G. Jiang and G. Cottrell. A Dual- Stage Attention-Based Recurrent Neural Network for Time Series Prediction. *International Joint Conference on Artificial Intelligence (IJCAI)*, 2017

Y. Qin, M. Feng, H. Lu and G. Cottrell. Hierarchical Cellular Automata for Visual Saliency. Submitted to *International Journal of Computer Vision (IJCV)*, 2016

Y. Qin, H. Lu, Y. Xu and H. Wang. Saliency Detection via Cellular Automata. In *Conference on Computer Vision and Pattern Recognition (CVPR)*, 2015

Q. Pan, **Y. Qin**, Y. Xu, M. Tong and M. He. Opinion Evolution in Open Community. *International Journal of Modern Physics C*, 1750003, 2016.

Research Experience

Graduate Student Researcher *2015 - Present*
Gary's Unbelievable Research Unit, UC San Diego, La Jolla, CA

- Focused on building convolutional neural networks to improve the performance in weakly semantic segmentation.
- Now I am applying recurrent neural networks for semantic segmentation to use the correlation of labels in the neighborhood.

Research Intern *2016. Jun - 2016. Sep*
Data Science, NEC Lab, Princeton, NJ

- Doing research on deep learning and its applications on time series prediction.
- Proposed a dual-stage attention based recurrent neural network for time series prediction.
- Built a NASDAQ100 stock dataset for the further research of long-range time series prediction.

Research Assistant*2014 - 2015**Intelligent Image Analysis and Understanding Lab*, DLUT, Dalian, China

- Accomplished the research on the saliency detection and proposed an efficient algorithm based on Cellular Automata to detect the salient objects in the images.
- Combining Cellular Automata with Bayesian theory to integrate multiple saliency maps. Experiments on public datasets demonstrate that the proposed method outperforms state-of-the-arts.

Research Assistant*2012 - 2014**Supported by National College Students' Innovative Training Program of China.*

- Accomplished the research on the propagation dynamics and opinion evolution.
- Established an interaction model to explain the formation of distinct characteristics in dynamic crowds and analyzed the properties and limitations of opinion stability.

Skills

Expert on C/C++, Python, Matlab, Caffe and Tensorflow.

Had solid knowledge for deep learning, Mathematics, computer vision and image processing.

Contest Experience

The 1st Prize in “Challenge Cup” Science and Technology Competition	<i>Provincial, 2015</i>
The 1st Prize in Undergraduate Mathematical Contest in Modeling	<i>Provincial, 2014</i>
Honorable Mention in Interdisciplinary Contest in Modeling	<i>International, 2014, 2013</i>
The 1st Prize in Undergraduate Mathematical Contest in Modeling	<i>National, 2013</i>
The 1st Prize in ‘Undergraduate Mathematical Contest in Modeling	<i>Provincial, 2013, 2012</i>
The 2nd Prize in Contemporary Undergraduate Mathematical Contest	<i>National, 2012</i>

Awards

NIPS Travel Award	<i>NIPS, 2016</i>
NIPS Women in Machine Learning Travel Award	<i>NIPS WiML, 2016</i>
Departmental Fellowship	<i>UC San Diego, 2015</i>
National Scholarship	<i>Department of Education of China, 2013, 2012</i>
Outstanding Undergraduate Student Award	<i>Liaoning Province, 2015</i>
HIWIN Elite Scholarship	<i>DLUT, 2014</i>