# Sijin LI

Gender: Male Email: sijin.li@my.cityu.edu.hk

### Education

2014/03---2016/07: PhD candidate, Department of Computer Science, City University of Hong Kong

**Research topic**: Computer vision, machine learning, deep learning **Advisor**: Dr. Antoni B. Chan

2011/09---2014/03: PhD candidate, School of Creative Media, City University of Hong Kong **Research topic**: Computer vision, machine learning **Advisor:** Professor Zhi-Qiang Liu

2007/09--2011/07: Bachelor, School of Computer Science, Northwestern Polytechnical University Major: Computer Science and Technology GPA: 88.19 / 100

### Publications:

- Maximum-Margin Structured Learning with Deep Networks for 3D Human Pose Estimation, Sijin LI, Weichen Zhang and Antoni B. Chan, ICCV 2015
- Heterogeneous Multi-task Learning for Human Pose Estimation with Deep Convolutional Neural Network, **Sijin LI**, Zhi-Qiang Liu and Antoni B. Chan, IJCV 2014
- Heterogeneous Multi-task Learning for Human Pose Estimation with Deep Convolutional Neural Network, Sijin LI, Zhi-Qiang Liu and Antoni B. Chan, CVPR 2014, DeepVision workshop
- 3D Human Pose Estimation from Monocular Images with Deep Convolutional Neural Network, **Sijin LI** and Antoni B. Chan ACCV 2014
- Maximum-Margin Structured Learning with Deep Networks for 3D Human Pose Estimation, **Sijin LI**, Weichen Zhang and Antoni B. Chan, IJCV 2016 (under review)

### **Projects**

### Oil transportation scheduling:

Built mathematical model for the logistic transportation of oil and did the optimization with GAMS (General Algebraic Modeling System).

### • ATM queue management: (NWPU, 2010/10-2011/07)

Designed a system for counting the number of people in front of ATM, localizing and tracking each individual using stereo camera. The system could also estimate the waiting time for each people in the queue according to historical information and current queuing state.

• HMLPE (CityU, 2013/06-2014/06)

Proposed a multi-task framework for 2d human pose estimation using deep convolutional neural network. The framework had also been extended for 3d pose estimation and achieved significant improvement over baseline method.

- Pedestrian Detection for Drone (Intern@DJI, 2015/07-2015/08) Trained deep neural network for pedestrian detection and optimized the code for pedestrian proposal.
- DeepStruct (CityU, 2014/06-2016/02) Proposed a maximum-margin structured learning framework for human pose estimation. I had also written a toolbox based on theano for training deep neural networks (https://github.com/sijinli/itheano).
- Head Pose Estimation (Intern@Horizon-robotics, 2016/02-2016/05) Trained deep models for human head pose estimation.

## Service

- Journal and conference Reviewing
  - IEEE Trans. on Circuits and Systems for Video Technology (TCSVT)
  - IEEE Signal Processing Letters (SPL)
  - Eurographics
- Teaching Assistant
  - CS5487, Machine Learning, City University of Hong Kong (2014)
  - CS5487, CS4487, Machine Learning, City University of Hong Kong (2015)
  - GE2326, Probability in Action: From the Unfinished Game to the Modern World, City University of Hong Kong (2015)

(NWPU, 2010/3-2010/9)

### **Programming Skills**

• Language: C/C++, Python, Cuda, Matlab

### Honors

- Outstanding Academic Performance Award for Research Degree Students, City University of Hong Kong, 2015
- Research Tuition Scholarship, City University of Hong Kong, 2015
- Conference Grants and Research Activities Fund, City University of Hong Kong, 2014 (twice)
- Outstanding graduates of Shaanxi Province, China, 2011
- Excellent bachelor graduation thesis, Northwestern Polytechnical University, 2011
- Gold Medal in ACM-ICPC regional Hefei Site (Second Place), 2008
- Silver Medal in ACM-ICPC regional Hangzhou Site (Fifteenth Place), 2008
- Bronze Medal in ACM-ICPC regional Wuhan Site, 2009
- Second Prize in Advanced Mathematics Contest of Shaanxi Province, China, 2008
- Pivot of Merit Student of Northwestern Polytechnical University, 2009
- National Scholarship, China, 2009
- Tencent Outstanding Technology Scholarship , 2009
- Special Award Scholarship in Northwestern Polytechnical University, 2009
- Major Award in Northwestern Polytechnical University, 2008
- ZTE Major Award, 2008