



Lichao Mou

Curriculum Vitae

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No. 17 Xinxi Road, Xi'an, Shaanxi, China

Education Background 2

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Nationality: China

Date of birth: 15th November 1989

Research Interests: machine learning, computer vision

2012 - present M.S. *Center for OPTical IMagery Analysis and Learning (OPTIMAL)*
State Key Laboratory of Transient Optics and Photonics
Chinese Academy of Sciences, Xi'an, China

Majoring in Signal and Information Processing
Specialized in Machine Learning and Computer Vision
Advisor: Prof. Xuelong Li, IEEE Fellow

2008 - 2012 B.S. *Xi'an University of Posts & Telecommunications, Xi'an, China*

Majoring in Automation

Chinese Academy of Sciences

Graduate Research Assistant

September 2012 to present

- Participating in the project "The Theory and Method of Spatial Information Processing and Intelligent Transformation of High Resolution Remote Sensing Data", which is supported by State Key Development Program for Basic Research of China.
- Developed algorithms to understand the scene categories of images, e.g., an innovational deep learning algorithm and multi-task learning for scene recognition.
- Understanding *probabilistic graphical model* (PGM) in real-world scene parsing, proposed an automatic scene image analysis system that jointly uses *low rank representation* (LRR) and *Markov Random Field* (MRF) under MAP framework.
- Raised a question: "Object or Background: Whose Call is It in Complicated Scene Classification?" and answered it in paper.
- Understanding transfer learning in video parsing task, *i.e.*, propagating semantic labels from images to videos. Meanwhile, using the frame relevance.
- Developed a real-time 3D SLAM software with RGB-D sensor.

China Electric Power Research Institute

Internship

March 2011 to December 2011

- Participated in develop of electric power consuming forecasting model.
- Participated in discussion and research of smart grid management.

China Telecommunications Corporation

Internship

June 2009 to September 2009

- Participated in management and maintenance of computer room.

Xi'an University of Posts & Telecommunications

Undergraduate Researcher

September 2008 to July 2012

- Participated in the project "Mathematical Modeling and Algorithm Research of Multi-agent Evolutionary with Social Negotiation Mechanism Driven", which is supported by National Natural Science Foundation of China (NSFC).
- Participated in develop of license plate intelligent identification system.
- Developed a program to find the optimal set of test cases for software testing.
- Proposed a joint coding based immune clonal selection algorithm for clustering.

Journal Reviewing

Machine Vision and Applications (Springer)

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External Conference Reviewing

Asian Conference of Computer Vision (ACCV) 2012

Research Visit

The State Key Laboratory for Information Engineering in Surveying, Mapping and Remote Sensing (LIESMARS), WUHAN University, Wuhan, Hubei China.

Poster Presentations

IEEE China Summit and International Conference on Signal and Information Processing (ChinaSIP) in Beijing, China.

International Conference on Computer Application and System Modeling (ICCASM) in Xiamen, Fujian China.

2014 Merit Student of Chinese Academy of Sciences

2012 First Prize in the "Challenge Cup" National Science and Technology College of extra-curricular academic competition works

2011 Title Software Designer (National Certification)

2010 Excellent Student-Cadre of Xi'an University of Posts & Telecommunications

2009 First Grade Scholarship of Xi'an University of Posts & Telecommunications

- [1] Xuelong Li, **Lichao Mou**, and Xiaoqiang Lu. *Scene Parsing from An MAP Perspective*. IEEE Transactions on Cybernetics. (under review)
- [2] Xiaoqiang Lu, Xuelong Li, and **Lichao Mou**. *Semi-Supervised Multi-task Learning for Scene Recognition*. IEEE Transactions on Cybernetics. (under review)
- [3] Yuan Yuan, **Lichao Mou**, and Xiaoqiang Lu. *Scene Recognition by Manifold Regularized Deep Learning Architecture*. IEEE Transactions on Neural Networks and Learning Systems. (under review)
- [4] **Lichao Mou**, Xiaoqiang Lu, and Yuan Yuan. *Object or Background: Whose Call is It in Complicated Scene Classification?* In IEEE China Summit and International Conference on Signal and Information Processing (ChinaSIP), 2013.
- [5] **Lichao Mou**, and Xiaoying Pan. *Union Coding Based Immune Clone Selection Unsupervised Clustering Algorithm*. In International Conference on Computer Application and System Modeling, (ICCASM), 2012.