

## Objective

- To pursue a Ph.D. degree starting in fall, 2014, in the field of EECS, specializing in computer vision and related.

## Education

- Bachelor of Engineering** majoring in **Electronic and Information Engineering**,  
Department of Electrical Engineering, Dalian University of Technology (DUT), China. *Graduate in July, 2014.*
- All-course score: **90/100**, Major-course score: **92/100**, Rank: **#1**. (58 total) *2009.9-2013.7*

## Selected Awards, Scholarships, and Honors

- |   | <i>Sponsor/Organizer</i>                                |
|---|---|
| • Interdisciplinary Contest in Modeling (ICM), <b>Meritorious Prize</b> . (5%)      | <a href="#">COMAP</a> , USA. 2012.2                     |
| • National English Contest for College Students, <b>Outstanding Prize</b> . (1%)    | <a href="#">NECCS</a> , China. 2012.4                   |
| • National Mathematical Modeling Contest (MMC), <b>Second Prize</b> .               | <a href="#">CSIAM</a> , China. 2011.11                  |
| • Challenge Cup - Science & Tech Contest, Liaoning Provincial <b>Second Prize</b> . | Ministry of Edu. 2013.4                                 |
| • The 17 <sup>th</sup> Campus Electric Design Contest, <b>First Prize</b> .         | DUT. 2012.6   |
| • China <b>National Scholarship</b> Winner. (8000 RMB)                              | Ministry of Edu. 2011,2012                              |
| • SHIDE <b>Enterprise Scholarship</b> Winner. (5000 RMB)                            | <a href="#">SHIDE Group</a> . 2010                      |
| • First Class <b>Academic Scholarship</b> Recipient. (1000 RMB)                     | DUT. 2010-2012  |
| • Mitacs Globalink <b>Research Internship Grant</b> . (5000 CAD)                    | <a href="#">Mitacs</a> and <a href="#">CSC</a> . 2012.4 |
| • <b>Merit Student</b> of the Year in Liaoning Province.                            | Liaoning Gov. 2012.11                                   |
| • Dalian <b>Best Student Leader</b> of the Year.                                    | Dalian Gov. 2011.10                                     |
| • Undergraduate <b>Academic Researcher</b> of the Year.                             | DUT. 2010,2011  |
| • Campus <b>Merit Student</b> of the Year.  | DUT. 2010-2012  |

## Research Experience *For a more detailed and vivid description, check [here](#).*

### Undergraduate Researcher, Image Analysis and Understanding Lab, DUT.

2013.4 – now

*Area:* Computer Vision, Image Processing, Machine Learning.

*Supervisor:* Prof. Huchuan Lu

- Saliency Detection via different methods, including contrast, frequency, Bayesian formula, matrix rank recovery, SVM, etc.; dedicated to submit a paper to *ECCV* 2014.

### Mitacs Research Intern, Dept. of CS, University of Victoria, Canada.

2012.7 – 2012.9

*Area:* Peer-to-peer Video-on-demand System, Computer Networks.

*Supervisor:* Prof. Jianping Pan

- Devise an inter-and-inner-chain strategy to help alleviate the server bandwidth consumption by reallocating clients' upload rates in a multi-thread distributed network.

### Undergraduate Researcher, Complex Network Lab, DUT.

2010.4 - 2013.2

*Area:* Network Science, Spatial Game Theory, Modeling.

*Supervisor:* Dr. Zhen Wang

- Paper:* **Hongyang Li**, Jian Xiao, Yumeng Li, Zhen Wang. "Effects of Neighborhood Type and Size in Spatial Public Goods Game on the Diluted Lattice", *Chaos, Solitons & Fractals*, 56(2013) 145-153.
- ICM 2013:* Construct a two-layered dynamic network to assess global environmental health. Inspired by the *PageRank* algorithm, we rectify the algorithm through a feedback link and stability test.
- ICM 2012:* Establish a probability-based network model to detect potential criminals according to identified information and flows of dialogue messages. BP *neural network* and centrality analysis are employed.
- MMC 2011:* Propose a plan to allocate traffic surveillance facilities in a city, based on graph theory, optimization in dynamic linear programming.

**Selected Course/Contest Projects.**

- Digital Signal Processing: Analysis of the noised and filtered acoustic signals  
Design a GUI interface in Matlab where acoustic signals are noised and filtered by IIR or FIR filters. 2013.5
  - Principle in Communications: The implementation of 16-QAM system  
Implement a QAM mechanism on FPGA, including filter design, carrier restoration, SER/BER, etc. 2013.7
  - Hardware Electronic System: The design of a DC/DC buck circuit  
Propose a refined circuit scheme to stabilize the output voltage (8V), through a MCU (STM32) controller. 2012.12
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**Technical Skills and Social Experience**

- Programming: Matlab, C/C++, OpenCV, Python, VHDL, Verilog, JAVA, Assembly. *In descending order of fluency.*
  - Software: Origin, Quartus II, Keil, Altium Designer, Visio, LaTeX, EndNote.
  - **Model United Nations Diplomat**, United Nations Headquarter, New York, U.S.A. 2011.4
  - **President** of Student Union, Faculty of Electronic Engineering and Computer Science, DUT. 2011.1 - 2012.1
  - Class EE0902 **Coordinator**, DUT. 2009.9 – now
  - IEEE Student Member. 2013.2 – now
  - **Teaching Assistant** for English Grammar, Freshman Course, DUT. 2010.6
  - **Management Assistant** at Complex Network Lab, School of Innovation Experiment, DUT. 2010.9 – 2011.1
  - Volunteer at International Summer Davos Forum, Dalian. 2011.9
  - Volunteer at the 5<sup>th</sup> China Entrepreneurship Week for Oversea Scholars, Dalian. 2010.7
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**Standardized English Test**

- TOEFL: Reading 30/30, Listening 26/30, Speaking 23/30, Writing 27/30, Total 106/120. 2013.3
  - GRE: Verbal 153/170, Quantity 164/170, Analytical Writing 3.5/6.0. 2013.3
  - CET-4: 606/710. 2009.12    CET-6: 622/710. 2010.12    TEM-4: Excellent. 2011.4    TEM-8: Good. 2013.3
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