# Xihan LI

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## EDUCATION

**Peking University**, Beijing, China

- M.S. Candidate in Computer Science and Technology (Machine Intelligence) — Sep 2016 – current
  Advisor: Prof. Yunhai Tong
  Focus: Data Mining, Maching Learning, Deep Learning

**National Chiao Tung University**, Hsinchu, Taiwan

- Exchange Student, College of Electrical and Computer Engineering — Feb 2015 - Jun 2015

**Zhejiang University**, Hangzhou, Zhejiang, China

- B.Eng. in Computer Science and Technology — Sep 2012 – Jun 2016
  Minor Courses Certificate in Biological Science.
  Graduated with Chu Kochen College Honors.
  Cumulative GPA: 3.6 / 4.0; Major GPA: 3.8 / 4.0

## RESEARCH EXPERIENCE

**Key Laboratory on Machine Perception (Ministry of Education)**, Peking University

Graduate Research Student — Sep 2016 – current
Advisor: Prof. Yunhai Tong
Focus: Data Mining, Maching Learning, Deep Learning

- Improved Google Deepmind's asynchronous methods for deep reinforcement learning on weight update process.
- Reimplemented Google Deepmind's DRAW model for image generation and Alex Graves' RNN handwriting prediction & synthesis model with TensorFlow.
- Wrote several analytical articles and reviews about new models and methods in machine learning and deep learning.

**Institute of Microbiology**, Chinese Academy of Sciences

Invited Visiting Research Student — Jul 2016
Inviter and Advisor: Prof. Yijian Yao
Focus: Bioinformatics, Software Development
Project: Chinese Species Red List - Fungus Volume

**Institute of Artificial Intelligence**, College of Computer Science, Zhejiang University

Undergraduate Research Student — May 2014 – Jun 2016
Advisor: Prof. Xiaogang Jin
Focus: Complex Network Analysis, Recommendation Algorithm
Project: Research and Implementation of Intelligent Recommendation Algorithm for Wikipedia — Dec 2015 – Jun 2016
Project: Analysis of the Influence Factor in Complex Reply Network — May 2014 – Nov 2015

## TEACHING EXPERIENCES

**Data Warehousing and Data Mining Technology**, Peking University

Teaching Assistant — Spring and Summer Semester, 2017
Designed the detailed instruction and criteria of the four choices of final course project. Directed the project class. Maintained the server for course resources.

## AWARDS AND SCHOLARSHIPS

- Outstanding Undergraduate Thesis, Zhejiang University — Jun 2016
- Outstanding Winner (top 9 in 2137), 2015 Interdisciplinary Contest in Modeling — Apr 2015
- Scholarship for Outstanding Merits, Zhejiang University — Dec 2014
- Scholarship for Outstanding Students, Zhejiang University — Dec 2014
- Excellent Student Award, Zhejiang University — Dec 2014
- Outstanding Student Leader Award, Zhejiang University — Dec 2014
- First Prize of Undergraduate Group, 2014 Contemporary Undergraduate Mathematical Contest in Modeling — Dec 2014
- First Prize, 2014 Mathematical Contest in Modeling, Zhejiang University — Jun 2014
- Scholarship for Outstanding Merits, Zhejiang University — Dec 2013

- Gold Medal & Best Experimental Measurement Approach, Asia, 2013 International Genetically Engineered Machine competition Nov 2013
- First Prize, 2011 National Olympiad in Informatics in Provinces Dec 2011

**SELECTED COURSES**

- Maching Learning (highest score in class), Deep Learning, Pattern Recognition, Complex Network Analysis, Computational Intelligence, Artificial Intelligence, Data Mining, Mathematical Modeling, Computation Theory, Applied Operational Research.

**COMPUTER SKILLS**

- Programming Languages: **Python, Matlab, LaTeX, Java, PHP**, R, Bash, C, C++, Pascal, Verilog, JavaScript, CSS, HTML, SQL, XML
- Frameworks: **TensorFlow, NumPy, Android SDK**, scikit-learn, OpenCV, OpenGL, LLVM, Arduino, ThinkPHP, Jekyll

**INDEPENDENTLY DEVELOPED PROGRAMS AND SOFTWARES**

**async_rl** Jan 2017 – Mar 2017

An open-source TensorFlow implementation of asyncronous 1-step Q learning with improvement on weight update process to speed up training. Available on GitHub: snowkylin/async_rl.

**rnn-handwriting-generation** Dec 2016 – Jan 2017

An open-source reimplementation of Alex Graves' RNN handwriting prediction & synthesis model by TensorFlow. Available on GitHub: snowkylin/rnn-handwriting-generation.

**rnn-vae** Nov 2016 – Jan 2017

An open-source reimplementation of variational autoencoder integrated with RNN based on Google DeepMind's DRAW model for image generation by TensorFlow. Available on GitHub: snowkylin/rnn-vae.

**Course Management System of Student Association of Zhejiang University** Nov 2014 – Jan 2015

Designed for students to choose courses offered by clubs and student associations in ZJU. Used and modified by Student Association Union of ZJU on http://www.zjustjpkc.com/.

**Wilddream Platform** May 2014 – current

An easy-to-use, mobile friendly online multiuser art gallery system with multilanguage support. Used by WildDream Art on http://www.wilddream.net.

With Computer Software Copyright Registration Certificate (Registration No: 2017SR111204) issued by National Copyright Administration of the PRC.

**CAMPUS AND SOCIAL ACTIVITIES**

**Animal Protector Association**, Zhejiang University

9th, 10th, 11th President Sep 2013 – Mar 2016

**Wildlife Conservation Society**

Intern Student Jul 2015 – Sep 2015

**CERTIFICATES AND LICENCES**

- Occupational Qualification Certificate of Psychological Consultant (Level III), the Ministry of Human Resources and Social Security, The People's Republic of China.

[*Short CV compiled on 2017-04-20 for Machine Learning Camp Jeju 2017*]