

# CHI ZHANG

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## EDUCATION

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<b>CKC Honor College</b>	2013.9 – 2017.6
<b>B.Eng. (Honors) in Computer Science and Technology</b>	
<b>Zhejiang University</b>	
➤ GPA: 3.93/4.00 Rank: 1/17	

## SELF-PACED COURSES

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<b>Machine Learning (CS229)</b>	2014.5
<i>Stanford</i>	
➤ Stanford Online Course	
<b>Neural Networks for Machine Learning (CSC321)</b>	2015.6
<i>University of Toronto</i>	
➤ University of Toronto Online Course	
<b>Convolutional Neural Networks for Visual Recognition (CS231n)</b>	2015.7
<i>Stanford</i>	
➤ Stanford Online Course	
<b>Deep Learning for Natural Language Processing (CS224d)</b>	2015.8
<i>Stanford</i>	
➤ Stanford Online Course	
<b>Advanced Topics in Reinforcement Learning</b>	2016.3
<i>University College London</i>	
➤ University College London Online Course	
<b>Convex Optimization (EE364a &amp; EE364b)</b>	2016.11
<i>Stanford</i>	
➤ Stanford Online Course	

## RESEARCH INTERESTS

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**Machine Learning**

- Deep Reinforcement Learning
- Unsupervised Feature Learning

**Computer Vision**

- Recognition, Detection and Tracking

## RESEARCH EXPERIENCE

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**Research Assistant** 2015.3 – 2016.7

*State Key Lab of CAD&CG, Zhejiang University*

- Real-Time Automatic Number Plate Detection
- Community-Based Question Answering
- Advisor: Prof. Deng Cai

**Research Intern** 2016.7 - 2016.9

*Center for Vision, Cognition, Learning, and Autonomy, UCLA*

- Task Design and Real-Time 3D Scene Rendering for Robot Learning
- Advisor: Prof. Song-Chun Zhu

**Research Intern** 2016.9 - present

*Hong Kong University of Science and Technology*

- Quadrotor Reinforcement Learning for Tracking
- Visual Tracking
- Advisor: Prof. Dit-Yan Yeung

## WORKING EXPERIENCE

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**Software Development Coordinator** 2016.3 - present

*Windmill Finance*

- Coordinate APP development progress in a FinTech start-up with its foreign collaborator

## PUBLICATION

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### CONFERENCES

Li, S., **Zhang, C.**, Yeung, D. **Learning Unmanned Aerial Vehicle Control for Autonomous Target Following.** *CVPR 2017*. Under review.

### JOURNALS

Chen, Z., **Zhang, C.**, Zhao, Z., Cai, D. **Question Retrieval for Community-based Question Answering via Heterogeneous Network Integration Learning.** *Neurocomputing*. *arXiv: 1611.08135*.

### PATENTS

**A Method of Exact 3D Modeling Based on Natural Gestures via Data Gloves.** Publication number: CN104778746 A.

## SELECTED PROJECTS

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**MXNet** 2016.9 - present

- Flexible and efficient machine learning library for heterogeneous distributed systems
- Regular contributor

**Perceive, Attend and Memorize** 2016.9 - present

- Visual tracker that incorporates detection, attention mechanism and external memory
- Ongoing research; paper to be submitted to ECML17

### **Quadrotor Reinforcement Learning for Tracking** 2016.9 - 2016.11

- Combined PID control loop and reinforcement learning algorithms to train a quadrotor to autonomously learn the concept of tracking
- Paper submitted to CVPR 17

### **Real-Time Automatic Number Plate Detection** 2016.2 - 2016.6

- Trained a CNN backbone with YOLO's detection layer for fast and accurate number plate detection and regression
- Incorporated into a drive-less vehicle system
- Part of *National Program on Key Basic Research Project of China (973 Program)*

### **Exact 3D Modeling Based on Natural Gestures via Data Gloves** 2014.12 - 2015.4

- Designed and manufactured a pair of data gloves for gesture detection via *Adruino*
- Collected data and built a *Random Forest* ensemble using C# and Python
- Second Prize in the *Extracurricular Academic Work Competition*, Zhejiang University
- Patented

## **HONORS/AWARDS**

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### **Honors & Scholarships**

- Excellent Student Scholarship, Zhejiang University (3 years in a row)
- Outstanding Student Scholarship, Zhejiang University (3 years in a row)
- First-class Academic Excellence Scholarship, Zhejiang University (3 years in a row)
- Social Practice Excellence Scholarship, Zhejiang University
- First-class Research and Innovation Scholarship, Zhejiang University
- Chinese Talent Scholarship, Asahi Kasei (single recipient in the honor college)
- Outstanding University Student Scholarship, Baosteel Group (6 recipients in 20,000 students)

### **Awards & Prizes**

- Meritorious Winner of the 2015 Mathematical Contest in Modeling
- Second Prize in the Physics Innovation Competition of Zhejiang Province
- Second Prize in the Extracurricular Academic Work Competition, Zhejiang University
- Five Star Volunteer of Zhejiang University (more than 250 hours of voluntary work)

## **MISCELLANEOUS**

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### **Programming**

- Languages: C/C++, Matlab and Python
- Frameworks: Theano and MXNet

### **Interests**

- Voluntary work related to education and social welfare

### **Service**

- Senior member of *The Forum for American/Chinese Exchange at Stanford (FACES)*, Chapter of Zhejiang University
- Team leader of *Department of Outgoing Global Community Development Program*, AIESEC
- Member of *The Internet Association of Zhejiang University*
- Leader of a voluntary teacher group to Yongle Primary School