Chi Zhang

Graduate, Computer Science, University of California - Los Angeles

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Education

University of California - Los Angeles, Los Angeles, U.S.
Master of Science, Computer Science — *Sept. 17 - June 19 (Expected)*
Advisor: Prof. Song-Chun Zhu
GPA: 4.00/4.00 (Overall)

Zhejiang University, Hangzhou, China
Bachelor of Engineering, Computer Science — *Sept. 13 - June 17*
GPA: 3.93/4.00 (Overall) **Rank: 1/17**

Research Interests

Reinforcement Learning, Robotic Learning and Computer Vision

Research Experience

Graduate Student Researcher
Center for Vision, Cognition, Learning and Autonomy, UCLA
Advisor: Prof. Song-Chun Zhu — *Sept. 17 - Present*

- Designed tasks and a real-time 3D rendering algorithm for robotic learning
- Developed a general method for mapping forces onto objects
- Devised an algorithm that combines reinforcement learning with And-Or Graph models for efficient learning

Research Intern
Hong Kong University of Science and Technology
Advisor: Prof. Dit-Yan Yeung — *Sept. 16 - March 17*

- Introduced the problem of tracking via reinforcement learning for quadcopters and developed an algorihm to solve it

Research Assistant
State Key Lab of CAD & CG, Zhejiang University
Advisor: Prof. Deng Cai — *March 15 - June 16*

- Used Deep Learning for real-time automatic number plate detection
- Devised a new algorithm for community-based question answering

Preprints

Siyi Li, Tianbo Liu, **Chi Zhang**, Dit-Yan Yeung, Shaojie Shen, Learning Unmanned Aerial Vehicle Control for Autonomous Target Following, arXiv: 1709.08233

Journals

Zheqian Chen, **Chi Zhang**, Zhou Zhao, Deng Cai, Question Retrieval for Community-based Question Answering via Heterogeneous Network Integration Learning, to appear in *Neurocomputing*

Patents

Xiangdong Li, Shihong Lv, Yikun Wang, Xiaowo Sun, **Chi Zhang**, A Method of Exact 3D Modeling Based on Natural Gestures via Data Gloves. Publication number: CN104778746 A. Shared owners, names listed without order.

Professional Experience

Machine Learning Engineer
Didi Research Institute
Advisor: Zenan Meng *April 17 - June 17*

- Improved SLAM algorithms for high-fidelity mapping for autonomous vehicles

Software Development Coordinator
Windmill Finance
Advisor: Dongming Xia *March 16 - Sept. 17*

- Coordinated APP development progress in a FinTech start-up with its foreign collaborators

Honors & Scholarships

Excellent Student Scholarship, Zhejiang University, 2013 - 2016
Outstanding Student Scholarship, Zhejiang University, 2013 - 2016
First-class Academic Excellence Scholarship, Zhejiang University, 2013 - 2016
Social Practice Excellence Scholarship, Zhejiang University, 2015
First-class Research and Innovation Scholarship, Zhejiang University, 2015
Chinese Talent Scholarship, Asahi Kasei, 2016
Outstanding University Student Scholarship, Baosteel Group, 2016

Awards & Prizes

Meritorious Winner of **Mathematical Contest in Modeling**, 2015
Second Prize in **Physics Innovation Competition**, Zhejiang Province, 2014
Second Prize in **Extracurricular Academic Work Competition**, Zhejiang University, 2014
Five Star Volunteer, Zhejiang University, 2016

Selected Projects

MXNet
Hong Kong University of Science and Technology
Advisor: Xingjian Shi *Sept. 16 - Present*

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

Quadrotor Reinforcement Learning for Tracking
Hong Kong University of Science and Technology
Advisor: Prof. Dit-Yan Yeung and Siyi Li *Sept. 16 - Nov. 16*

- Combined PID control loop and reinforcement learning algorithms to train a quadrotor to autonomously learn the concept of tracking
- Paper submitted to *ICRA 2018*

Real-Time Automatic Number Plate Detection
Zhejiang University
Advisor: Prof. Deng Cai *Feb. 16 - June 16*

- Trained a CNN backbone with YOLOs detection layer for fast and accurate number plate detection and regression
- Incorporated into an antonomous 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
Zhejiang University
Advisor: Prof. Xiangdong Li and Sihong Lv *Dec. 14 - April 15*

- 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
- Patented

Computer Skills

Languages: C/C++, Python, Matlab, LaTeX
Frameworks: MXNet, PyTorch

Service

Member of *Forum for American/Chinese Exchange at Stanford* (FACES), 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