# Xiaolong ZHU

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RESEARCH INTERESTS Computer Vision, including Object Detection, Gesture Recognition;

Machine Learning, including Random Forest, SVM, Restricted Boltzmann Machine.

Multimedia, including Image Retrieval, Human-Computer Interaction;

**EDUCATION** 

The University of Hong Kong,

Hong Kong SAR, China

Ph.D. Candidate, Computer Science,

September 2010 - present

Advisor: Dr. Kenneth K. Y. Wong

Peking University,

Beijing, China

B.S., Machine Intelligence

September 2006 - June 2010

- Thesis Title: Segmentation and Classification of Range Image.
- Excellent Undergraduate Thesis Award.
- Advisor: Dr. Huijing Zhao

#### **PUBLICATIONS**

## [Refereed Conference Papers]

- 1. **Xiaolong Zhu**, Ruoxin Sang, Xuhui Jia and Kwan-Yee K. Wong. A Hand Shape Recognizer from Simple Sketches. *International Conference on Image and Vision Computing New Zealand (IVCNZ*), 2013.
- 2. Xuhui Jia, **Xiaolong Zhu**, Angran Lin and Kwok-Ping Chan. Face Alignment using Structured Random Regressors Combined with Statistical Shape Model Fitting. *International Conference on Image and Vision Computing New Zealand (IVCNZ)*, 2013.
- 3. **Xiaolong Zhu**, Kwan-Yee K. Wong. Single-Frame Hand Gesture Recognition Using Color and Depth Kernel Descriptors. *IEEE International Conference on Pattern Recognition (ICPR)*, 2012.
- 4. Zhihu Chen, Kwan-Yee K. Wong, Yasuyuki Matsushita, **Xiaolong Zhu**, Miaomiao Liu. Self-Calibrating Depth from Refraction. *IEEE International Conference on Computer Vision (ICCV)*, 2011.
- Xiaolong Zhu, Huijing Zhao, Yiming Liu, Yipu Zhao, Hongbin Zha. Segmentation and Classification of Range Image from an Intelligent Vehicle in Urban Environment. IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), 2010.
- 6. Huijing Zhao, Yiming Liu, **Xiaolong Zhu**, Yipu Zhao, Hongbin Zha. Scene Understanding in a Large Dynamic Environment through a Laser-based Sensing. *IEEE International Conference on Robotics and Automation (ICRA)*, 2010.

## [Journal Papers]

1. Zhihu Chen, Kwan-Yee K. Wong, Yasuyuki Matsushita, **Xiaolong Zhu**. Depth from Refraction Using a Transparent Medium with Unknown Pose and Refractive Index. *International Journal of Computer Vision (IJCV)*, 2012.

EXPERIENCE

Lenovo IVC Lab.

Hong Kong SAR, China

Research Intern

June 2013 - August 2013

- Innovated new ways for image searching.
- Designed a prototype of touch-based image retrieval system and demonstrated it to CTO.

#### Microsoft Research Asia.

Beijing, China

Research Intern

June 2012 - September 2012

- Learned HCI workflow of problem solving;
- Designed visual feedback for in-air gesture recognition.

Youdao.com, Beijing, China

Software Engineer Intern

June 2010 - August 2010

- Coded web front-end of a Location-based Social Network Service:
- Cooperated with web designer.

### Peking University,

Beijing, China

Undergraduate Research Assistant

September 2008 - June 2010

- Participated in the *POSS* project, in 3D VCR Lab;
- Analyzed range data using computer vision methods.

## TEACHING The University of Hong Kong,

Hong Kong SAR, China

Teaching Assistant

September 2010 - May 2014

- Assisted Dr. Kenneth K.Y. Wong in Computer Vision;
- Assisted Dr. Kenneth K.Y. Wong in Computer Programming and Applications;
- Assisted Dr. Loretta Yi-King Choi in Topic in Computer Science: Visual Analysis.
- Assisted Dr. Kenneth K.Y. Wong in Computer Vision;
- Assisted Dr. Chun Kit Chui in Computer Programming and Applications;
- Assisted Dr. Kenneth K.Y. Wong in Computer Programming and Applications;

#### **AWARDS**

- Studentship of the University of Hong Kong, 2010-2014;
- Top 10 Undergraduate Thesis, School of EECS in Peking University, 2010;
- Wusi Scholarship in Peking University, 2009;
- Outstanding Volunteer in Beijing 2008 Olympic Games, 2008;
- First Class Honor in China Physics Olympic Games, Gansu, 2006.

## TECHNICAL SKILLS

- Programming in: C/C++, Matlab, JavaScript/HTML/CSS, Python;
- Basic Experience in: Objective-C, Processing, UNIX Shell scripting;
- Native Mandarin speaker, fluent in English, very little Japanese and Cantonese;
- Operating Systems: Windows, Mac OS X.

#### SOCIAL ACTIVITIES

- Member of Information Technology Committee, The University of Hong Kong, 2012-2014;
- IT Officer of Postgraduate Association (PGSA) in The University of Hong Kong, 2011-2013;
- Volunteer as Media Assistant for Journalists in Games of the XXIX Olympiad, 2008.