

# Xiaolong ZHU

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RESEARCH INTERESTS	<b>Computer Vision</b> , including <i>Hand Detection</i> , <i>Posture Recognition</i> ; <b>Machine Learning</b> , including <i>Random Forest</i> , <i>SVM</i> , <i>Restricted Boltzmann Machine</i> ; <b>Human-Computer Interaction</b> , including <i>Gestural Interface</i> .	
EDUCATION	<b>The University of Hong Kong</b> , Ph.D. Candidate, <i>Computer Science</i> , • Advisor: Dr. Kenneth K. Y. Wong	Hong Kong SAR, China <b>September 2010 - present</b>
	<b>Peking University</b> , B.S., <i>Intelligence Science and Technology</i> • Thesis Title: Segmentation and Classification of Range Image. • <i>Excellent Undergraduate Thesis Award</i> . • Advisor: Dr. Huijing Zhao	Beijing, China <b>September 2006 - June 2010</b>
PUBLICATIONS	[Refereed Conference Papers] <ol style="list-style-type: none"><li>1. <b>Xiaolong Zhu</b>, Xuhui Jia and Kwan-Yee K. Wong. Structured Forests for Pixel-level Hand Detection and Hand Part Labelling. <i>Asian Conference on Computer Vision (CVIU)</i>, in press.</li><li>2. <b>Xiaolong Zhu</b>, Xuhui Jia and Kwan-Yee K. Wong. Pixel-Level Hand Detection with Shape-aware Structured Forests. <i>Asian Conference on Computer Vision (ACCV)</i>, 2014.</li><li>3. <b>Xiaolong Zhu</b>, Ruoxin Sang, Xuhui Jia and Kwan-Yee K. Wong. A Hand Shape Recognizer from Simple Sketches. <i>International Conference on Image and Vision Computing New Zealand (IVCNZ)</i>, 2013.</li><li>4. Xuhui Jia, <b>Xiaolong Zhu</b>, Angran Lin and Kwok-Ping Chan. Face Alignment using Structured Random Regressors Combined with Statistical Shape Model Fitting. <i>International Conference on Image and Vision Computing New Zealand (IVCNZ)</i>, 2013.</li><li>5. <b>Xiaolong Zhu</b>, Kwan-Yee K. Wong. Single-Frame Hand Gesture Recognition Using Color and Depth Kernel Descriptors. <i>IEEE International Conference on Pattern Recognition (ICPR)</i>, 2012.</li><li>6. Zhihu Chen, Kwan-Yee K. Wong, Yasuyuki Matsushita, <b>Xiaolong Zhu</b>, Miaomiao Liu. Self-Calibrating Depth from Refraction. <i>IEEE International Conference on Computer Vision (ICCV)</i>, 2011.</li><li>7. <b>Xiaolong Zhu</b>, Huijing Zhao, Yiming Liu, Yipu Zhao, Hongbin Zha. Segmentation and Classification of Range Image from an Intelligent Vehicle in Urban Environment. <i>IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)</i>, 2010.</li><li>8. Huijing Zhao, Yiming Liu, <b>Xiaolong Zhu</b>, Yipu Zhao, Hongbin Zha. Scene Understanding in a Large Dynamic Environment through a Laser-based Sensing. <i>IEEE International Conference on Robotics and Automation (ICRA)</i>, 2010.</li></ol>	

[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.