

Xiaolong ZHU

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RESEARCH INTERESTS	Computer Vision , including <i>Image Classification and Localization, Semantic Labelling, Human Pose Estimation, Gesture Recognition</i> ; Machine Learning , including <i>Random Forest, SVM, CNN, RBM and LSTM</i> ; Human-Computer Interaction , including <i>Gestural Interface</i> .	
EDUCATION	The University of Hong Kong , Hong Kong SAR, China Ph.D., <i>Computer Science</i> , September 2010 - January 2016 <ul style="list-style-type: none">• Thesis Title: Hand Detection and Hand Shape and Posture Analysis in Images.• Advisor: Dr. Kenneth K. Y. Wong Peking University , Beijing, China B.S., <i>Intelligence Science and Technology</i> , September 2006 - June 2010 <ul style="list-style-type: none">• Thesis Title: Segmentation and Classification of Range Image.• <i>Excellent Undergraduate Thesis Award</i>.• Advisor: Dr. Huijing Zhao	
PUBLICATIONS	[Refereed Conference Papers] <ol style="list-style-type: none">1. Haozhi Huang, Hao Wang, Wenhan Luo, Lin Ma, Wenhao Jiang, Xiaolong Zhu, Zhifeng Li, and Wei Liu. Real-Time Neural Style Transfer for Videos. <i>IEEE Conference on Computer Vision and Pattern Recognition (CVPR)</i>, 2017.2. Xiaolong Zhu, Wei Liu, Xuhui Jia and Kwan-Yee K. Wong. A Two-Stage Detector for Hand Detection in Ego-Centric Videos. <i>Winter Conference on Applications of Computer Vision (WACV)</i>, 2016.3. Xiaolong Zhu, Xuhui Jia and Kwan-Yee K. Wong. Pixel-Level Hand Detection with Shape-aware Structured Forests. <i>Asian Conference on Computer Vision (ACCV)</i>, 2014.4. Xiaolong Zhu, 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>, 2013.5. Xuhui Jia, Xiaolong Zhu, 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>, 2013.6. Xiaolong Zhu, Kwan-Yee K. Wong. Single-Frame Hand Gesture Recognition Using Color and Depth Kernel Descriptors. <i>IEEE International Conference on Pattern Recognition (ICPR)</i>, 2012.7. Zhihu Chen, Kwan-Yee K. Wong, Yasuyuki Matsushita, Xiaolong Zhu, Miaomiao Liu. Self-Calibrating Depth from Refraction. <i>IEEE International Conference on Computer Vision (ICCV)</i>, 2011.	

8. **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.
9. 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. **Xiaolong Zhu**, Xuhui Jia, Kwan-Yee K. Wong. Structured Forests for Pixel-level Hand Detection and Hand Part Labelling. *Computer Vision and Image Understanding (CVIU)*, 2015.
2. 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

Tencent TEG,

Shenzhen, China

Senior R&D Engineer

Aug 2016 - Present

- Developed an algorithm for real-time video style transfer;
- Deployed style transfer filters for images and live videos to QQ App;
- Developed several prototypes for AI Lab Vision Team.

R&D Engineer

Jul 2015 - Aug 2016

- Implemented CTC model for end-to-end speech recognition, collaborating with Weixin Speech Team;
- Worked on prototyping news recommendation using DNN model;
- Implemented a prototype of service robot based on ROS/Turtlebot.

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: Matlab, Python, C/C++, JavaScript/HTML/CSS;
- 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

- Co-founder of Tech Club of Tencent TEG, 2015-2016;
- 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.