

# Haiyan YANG

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## Education

### Hong Kong University of Science and Technology

*Master of Philosophy, GPA – 3.92*

Department of Electronic and Computer Engineering

Master thesis: On image matting Thesis supervisor: Prof. Oscar C. Au

Hong Kong, China

2012 – 2014

### University of Electronic Science and Technology of China

*Bachelor of Engineering, GPA – 3.5*

Ying-cai Honors College (Honor School with acceptance rate 3%)

Chengdu, China

2008 – 2012

## Publications

### Papers.....

- Qiaomu Shen, Tongshuang Wu, **Haiyan Yang**, Yanhong Wu, Huamin Qu, and Weiwei Cui, “NameClarifier: A Visual Analytics System for Author Name Disambiguation”, IEEE Transactions on Visualization and Computer Graphics (Proceedings of VAST 2016)
- **Haiyan Yang**, Oscar C. Au, Yuan Yuan, Wenxiu Sun, Yonggen Ling, and Yongfang Shi, “Natural Image Matting via Adaptive Local and Nonlocal Sample Clustering”, ICIP 2014. **[Top 10% Award]**
- **Haiyan Yang**, Oscar C. Au, Jin Zeng, Mengqi Ji, Yuan Yuan, and Sunil Prasad Jaiswal, “A Comprehensive Study on Digital Image Matting”, ChinaSIP 2014. **[Oral, invited paper]**
- Sunil Prasad Jaiswal, Oscar C. Au, Vinit Jakhetiya, Yuan Yuan, and **Haiyan Yang**, “Exploitation of Inter-color Correlation for Color Image Demosaicking”, ICIP 2014
- Yonggen Ling, Oscar C. Au, Ruobing Zou, Jiahao Pang, **Haiyan Yang**, and Amin Zheng, “Photo Album Compression By Leveraging Temporal-Spatial Correlations and HEVC”, ISCAS 2014

### Patents.....

- **Haiyan Yang**, Fan Zhang, “An electronic device and information processing method”, CN105472212A. Aril 06, 2016
- **Haiyan Yang**, Shan Gao, Oscar C. Au, “A transparency-based matting method and apparatus”, CN105590307A . May 18, 2016

## Experience

### Research experience.....

#### VisLab

Research assistant

HKUST

Mar. 2016 – Present

- Research on Serious games. **[Ongoing]**
- Research on comparative visualization of WeChat articles to analyse the information diffusion pattern in WeChat platform. **[Ongoing, demo: <http://ihome.ust.hk/~haiyany/>]**
- Research on Name disambiguation. **[Published one paper in TVCG 2016]**

## Device Plus Lab - Camera & Computer Vision

Computer vision researcher

Lenovo Group Ltd.

Sep. 2015 – Jan. 2016

- Help built Lenovo-own next generation camera prototype, focusing on dual camera fusion.
- Improved image quality in lower light situation based on standard evaluation criteria (DxO and Imatest).

## Image and Visual Computing Lab (IVCL)

Computer vision researcher

Lenovo Group Ltd.

Nov. 2014 – Aug. 2015

- Explored and designed new algorithms to improve mobile phone image quality using matlab and C, concentrate on low-light image denoising and texture enhancement. **[Filed a patent]**
- Designed and implemented a fast motion blur algorithm to achieve special background blur effect. **[Integrated in Lenovo VIBE Shot]**
- Designed and integrated ISP (image signal processor) pipeline using MATLAB and C.

## Multimedia Technology Research Center (MTrec)

Research assistant

HKUST

Jan. 2014 – Jul. 2014

- Did research on digital image matting. **[Published two papers and one patent]**

## Teaching experience.....

### Media Production: Technology and Design

Teaching assistant, Dept. of ECE

HKUST

Sept. 2013 – Dec. 2013

- Tutorials and Labs: taught the usage of multimedia tools like Adobe Photoshop, Adobe Premiere, etc.

### Signals and Systems

Teaching assistant, Dept. of ECE

HKUST

Jun. 2013 – Aug. 2013

### Digital Media and Multimedia Applications

Teaching assistant, Dept. of ECE

HKUST

Feb. 2013 – May. 2013

- Labs: taught multimedia applications by using Adobe Photoshop, Adobe Audition, HTML, Javascript, etc.

## Course projects.....

### Computer vision

Four projects in total, Score: A+

HKUST

Feb. 2013 – May. 2013

(1) Intelligent scissors, (2) Single view Metrology, (3) Outlier Rejection, (4) Multiple-view Modeling.

Please refer to my personal webpage for projects details: <http://ihome.ust.hk/haiyany/>

### Machine learning

Two projects, Score: 98/100 and 100/100

HKUST

Sept. 2012 – Dec. 2012

(1) Implemented PCA and LDA, wrote report, (2) Implemented KNN algorithm, Logistic Discrimination and SVM.

## Awards

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2014: Top 10% papers Award, ICIP 2014

2012 – 2014: Postgraduate studentship, HKUST

2012: Outstanding individuals on work-study, UESTC

2009 – 2011: Third-class people's scholarship, UESTC

2008: Second-class freshmen scholarship, UESTC

## Computer skills

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**Intermediate:** C/C++, PYTHON, FLTK, ADOBE PHOTOSHOP

**Advanced:** MATLAB, HTML, CSS, JAVASCRIPT, D3.JS, OPENCV, L<sup>A</sup>T<sub>E</sub>X, MATHCAD

## Interests

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- Hiking, Running, Photographing, Cooking, Chinese classical literature, Poetry