

## Education

July 2017--- Now, Singapore Management University, Singapore  
**Research Engineer, LARC Lab co-founded by Carnegie Mellon University and Singapore Management University**

- Research in LARC Lab (Living Analytics Research Centre) with Professor Steven Hoi.
- Research in Deep Learning area.
- In charge of FoodAI research project (<http://foodai.org>) and medical images processing.

September 2014 --- June 2017, South China University of Technology, Guangzhou, Guangdong, China

**Masters of Software Engineering**, Computer Vision & Visual Programming Emphasis

- Ranked 4th (52 students).

Fall 2016, **Pittsburg State University**, Pittsburg, Kansas, USA  
**Visit student**, Computer Technology Emphasis

- Built a remote-controlled car.
- Built a mp3 player using hcs12 dragon board, programmed with assembly language of hcs12 microcontroller.
- Learned project management knowledge, gained computer security experience.
- All selected classes (7 classes) are As, GPA 4.0.

September 2010 --- June 2014, Hunan Agricultural University, Changsha, Hunan, China

**Bachelors of Information Engineering**

- Ranked 2nd (72 students).

## Research & Projects

May 2017 to Now

**Deep Learning in Food and Medical image processing**

- Research on Fine-grained classification and semi-supervised learning.
- In charge of FoodAI research project (<http://foodai.org>) and raised the original top1 / top5 accuracy of food classification from 70% / 90% to 78% / 94%.
- Medical image processing on chest diseases.

January 2017 to May 2017

**Image Matting algorithm research**

- Came up with ideas of algorithms to solve natural image matting problem efficiently.
- Published a paper in Proceedings of the 2017 IEEE International Conference on Computational Science and Engineering(ICSE'17)

December 2015 to May 2016

**Project Manager & Developer of Dr. Luck EST Visual Programming Platform**

- Used C++ architecture, excellent transfer between different platforms.
- Implemented the backend of the platform, over 20000 C++ codes have been written by me.
- The software was in mass production and put into market now.

November 2015

**Developer of Know Video Platform**

- Implemented with JS+PHP in 24 hours, a chrome add-in, fancy media previews will show up whenever users type the keywords in the search engine (multiple search engine supported).
- Came up with a marvelous business model, a considerably great UGC platform by which users can upload their video clips.

May 2015

**Team Leader & Developer of female shoes shopping guide-system on mobile**

- Designed the system architecture and coding, including the database, framework and web-crawler programming.
- Implemented the system and test the system based on Java.

December 2014 to January 2015

**Team Leader & Developer of Students homework checking system**

- Conceptualize and designed the system architecture and coding.
- Used C++ (including Qt framework), over 99% checking accuracy.

June 2014 to September 2014

**Masked-Men Detection computer vision research**

- Created a method to find out masked-men on real time videos.

January 2014 to March 2014

**Independent Implementation of ACM Online Judge**

- Automatically judged ACMers' submissions, this system can be used in competitions.
- Used C++ (Compile core) and Java (Web, Struts + Hibernate).

March 2013 to April 2013

**Independent Implementation of Digital clock based on FPGA**

- Programmed based on VHDL of FPGA (Field-Programmable Gate Array).

**Publications**

- Congbo Ma, Xiaowei Yang and Hu Wang. Randomized Online CP Decomposition (Newly accepted in January 2018).
- Hu Wang, Zhongming Yang and Congbo Ma. A Fast Image Matting Method based on Interval-line Sampling. In: Proceedings of the 2017 IEEE International Conference on Computational Science and

Engineering(ICSE'17), Guangzhou, China, July 21-22, 2017.

- Hu Wang, Jun Ren. Design of digital clock based on FPGA (In Chinese). Electronic Design and Engineering. 2014, (04):127-129.

## **Patents & Copyrights**

- "A Graphical Programming Multithreading Synchronization Method." 1 June 2017. Patent (201710405733.7).
- "A Visual Programming Control and Store System." 30 November 2016. Patent (201611092887.7).
- "Dual Mode Video Masked-men Detection Based on Statistical Characteristics." 20 December 2015. Patent (201510971527.3).
- "Masked-men Detection Based on Color Features." 7 July 2015. Patent (201510451280.2).
- "Intelligent Masked-Men Detection system." 26 September 2014. Software copyright (2015SR035707).
- "ACM/ICPC Online Judge." 26 March 2014. Software copyright (2015SR035709).

## **Internship**

June 2016 to August 2016

**Senior Java-Programmer internship of Ant Financial Services Group affiliate with Alibaba Corporation**, Hangzhou, China

- Built web-crawler software, Java programming.
- Became familiarized with Alipay SOFA architecture.

August 2015 to May 2016

**Programmer internship of Dr. Luck Corporation**

## **Awards & Honors**

- |  |                           |      |
|--|---------------------------|------|
| ▪ South China University of Technology                     | Excellent Students Awards | 2016 |
| ▪ IBM Master the Mainframe Global Individual Contest       | Third Prize               | 2015 |
| ▪ Hack Shanghai Global Hackathon                           | Ranked Third              | 2015 |
| ▪ Microsoft campus Hackathon Contest                       | Excellence Award          | 2015 |
| ▪ South China University of Technology Samsung Scholarship |                           | 2015 |
| ▪ Ali Baichuan Hackathon Programming Contest               | Rank Third                | 2015 |
| ▪ Tencent Internet innovation and startup contest          | National top 100          | 2015 |
| ▪ Star Cup English Speech Contest                          | Second Prize              | 2015 |
| ▪ SCUT Graduate Student Debate Contest                     | Rank Second               | 2014 |
| ▪ Hunan Agricultural University ACM Programming Contest    | First Prize               | 2013 |
| ▪ The Eleventh Truth Seeking Cup Programming contest       | First Prize               | 2012 |
| ▪ The Praise of China Cup calligraphy contest              | Third Prize               | 2012 |
| ▪ National Electronic professionals' skills contest        | Excellence Award          | 2012 |
| ▪ Hunan Agricultural University English Speech Contest     | Third Prize               | 2012 |
| ▪ Hunan Agricultural University ACM Programming Contest    | First Prize               | 2012 |
| ▪ The Praise of China Cup calligraphy contest              | First Prize               | 2010 |

|                   |  |                             |      |
|-------------------|--|-----------------------------|------|
| <b>Activities</b> | ▪ Microsoft Research Asia                | Campus Hackathon Conference | 2015 |
|                   | ▪ Microsoft Corporation                  | Microsoft Summer Camp       | 2015 |
|                   | ▪ SCUT Microsoft Technology Club         | Vice-president              | 2015 |
|                   | ▪ Guangzhou Import/Export Commodity Fair | Interpreter                 | 2015 |
|                   | ▪ Oral English class                     | Teaching Assistant          | 2015 |
|                   | ▪ Algorithm & C++ class                  | Teaching Assistant          | 2015 |
|                   | ▪ Qide International Education           | Interpreter                 | 2013 |
|                   | ▪ Aoji International Education           | Interpreter                 | 2013 |
|                   | ▪ ACM Programming Innovation Lab         | Team Leader                 | 2011 |

**References**

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