

# Tong QU

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## EDUCATION

### The Hong Kong Polytechnic University (HKPolyU)

Hong Kong

*Master of Science in Electronic and Information Engineering with Distinction, GPA: 3.75/4.0*

Sep 2012 – Oct 2013

- Top 1 student among non-local post-graduates in the department.
- 8 years of programming and engineering experience: solid expertise in **Python** (>100k lines), MATLAB (>50k lines), HTML, CSS, JavaScript, and various algorithms/frameworks; experienced in C++, Java, SQL, PHP, UNIX/Linux Shell, R, and LaTeX; contributed to various open source projects.

### Beijing University of Posts and Telecommunications (BUPT)

Beijing

*Bachelor of Engineering in Communication Engineering, GPA: 86.7/100*

Sep 2008 – Jun 2012

- Awards: 2011 Baidu Internet Product Design Contest 2<sup>nd</sup> Place (3 among 280+); 2011 Microsoft Imagine Cup China 3<sup>rd</sup> Place (6 among 150+); 2011 JDSU Scholarship (top 1%); 2009/2010/2011 Academic Excellence Awards (top 5%)

## EXPERIENCE

### Professional Experience.....

#### Beijing Y-English Education and Technology Co., Ltd.

Beijing

*Full-Stack Web Developer, Chief Engineer*

Apr 2016 – Present

- Rapidly designed, developed and deployed a state-of-the-art, full-featured, web-based teaching management system.
- Proposed and applied an improved resource allocation algorithm based on ranking, proved to be highly efficient.

#### Global Energy Interconnection Research Institute (affiliated to State Grid Corporation of China)

Beijing

*Research and Development Engineer*

Jul 2014 – Mar 2016

- Published a paper as co-author: Parameter Estimation for External Network Static Equivalent Model Based on Nonlinear Programming Genetic Algorithm, *Smart Grid*, 2016, 4(2):133-140.
- Contributed to 2 patents: A Method for Estimating Negative Sequence Impedance Parameters Applicable to Unbalanced Three-Phase Disturbance Source Localization; A Method for Localizing Unbalanced Three-Phase Disturbance Sources in Power Systems.
- Authored a paper: Voltage Sag Source Location Based on Multiple Criteria (submitted to IEEE).
- Performed rich analytics on power quality data collected from real world power grid monitoring network.
- Built a robust data analysis platform, and participated in the state grid harmonics monitoring project.

### Research Experience.....

#### GA-based Solutions to Vehicle Routing Problem with Time Windows

Beijing

*School of Automation, BUPT*

Feb 2016 – Jun 2016

- Developed an open source simulation framework for further research, and authored associated tutorials.
- Evaluated various popular genetic algorithm based solutions to the problem.

#### Consumer Gender and Age Mining based on User Online Shopping Data

Beijing

*Alibaba University Technology Alliance, BUPT*

Dec 2015 – Jan 2016

- Won 3<sup>rd</sup> Prize in BUPT AUTA Data Mining Challenge (top 1 in Phase 1, top 5 in Phase 2 among 200+).
- Extracted one-hot features from various data combinations, and trained fusion models based on popular algorithms.

#### Large-Scale Image Retrieval Learned from User-Generated Data | Visiting Scholar

Beijing

*Advisor: Xirong Li, Associate Professor, School of Information, Renmin University of China*

Dec 2013 – Jun 2014

- Surveyed on web image retrieval related publications, and proposed three approaches based on user clicked data.
- Implemented and evaluated proposed approaches on several real-world datasets.

#### Low-Resolution Face Recognition | MSc Dissertation

Hong Kong

*Advisor: Kenneth K. M. Lam, Professor & Associate Dean, Faculty of Engineering, HKPolyU*

Nov 2012 – Aug 2013

- Surveyed on low-resolution face recognition related publications, and studied prevailing approaches.
- Proposed a coupled-projection method, and increased recognition rates even at a very small resolution (8-by-8).

## SKILLS/INTERESTS

- 15 years of computer **graphic design** experience: solid expertise in Photoshop, Illustrator, and Flash.
- Work out 7+ hours per week; completed the first **full marathon** through 8 weeks of training in 2016.