

Yong Wang

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Education

2014

Ph.D in Computer Science, *Department of Computer Science and Engineering, The Hong Kong University of Science and Technology (HKUST)*, Hong Kong.

- Supervisor: Prof. Huamin Qu.
- Research Interest: **Graph Visualization, Visual Analytics** and Image Processing.

2011
2014

Master Degree of Pattern Recognition & Intelligent System, *School of Automation, Huazhong University of Sci. & Tech. (HUST)*, Wuhan, China.

2007
2011

Bachelor Degree of Automation, *School of Aerospace, Harbin Institute of Technology (HIT)*, Harbin, China.

Projects

2016

Visualizing Research Impact Through Citation Data, *Research Project*.

- Proposed a novel method for visualizing research impact.
- Developing tools / languages: Javascript, Python, AngularJS, D3 and MongoDB

2015

Visual Exploration of Coauthor Relationship, *Team Project*.

- Explored the HKUST publication dataset and visualized the co-author network of each HKUST professor.
- Developing tools / languages: Javascript, Python, AngularJS, D3 and MongoDB

2015

Ambiguity Analysis in Graph Visualization Layouts, *Research Project*.

- Systematically analyzed the possible ambiguities in graph layouts and developed a prototype system to visualize it (published in infoVis 2015).
- Developing tools / languages: Javascript, Python, AngularJS, D3, three.js and MongoDB

2014

Visualization for PQE-Defense log data of HKUST CSE department, *Independent Project*.

- Visualized the PQE-Defense log data of HKUST CSE department in the past 16 years (url: pqeDefenseVis).
- Developing tools / languages: Javascript, Python, mySQL, AngularJS, D3 and MySQL

2013

Leucocyte Segmentation and Classification, *Research Project*.

- Built a framework for leucocyte location and segmentation, and designed both a fast auto-focus algorithm and an improved segmentation method using Support Vector Machine.
- Developing tools / languages: C/C++, openCV

Publications and Patents

[1] **Yong Wang**, Daniel Archambault, Carlos E. Scheidegger and Huamin Qu. A Vector Field Design Approach to Animated Transitions. *IEEE Transactions on Visualization and Computer Graphics*, 2017. In press.

[2] **Yong Wang**, Conglei Shi, Liangyue Li, Hanghang Tong and Huamin Qu. Visualizing Research Impact Through Citation Data. *ACM Transactions on Interactive Intelligent Systems (TiiS)*, 2017. In press.

[3] Xun Zhao, Yanhong Wu, Weiwei Cui, Xinnan Du, Yuan Chen, **Yong Wang**, Dik Lun Lee and Huamin Qu. SkyLens: Visual Analysis of Skyline on Multi-dimensional Data. *IEEE Transactions on Visualization and Computer Graphics (VAST 2017)*. In press.

[4] Liangyue Li, Hanghang Tong, **Yong Wang**, Conglei Shi, Nan Cao and Norbou Buchler. Is the Whole Greater Than the Sum of Its Parts? In *Proceedings of the 23rd ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD)*. Halifax, Canada, August 2017.

[5] Chun-Fu Richard Chen, Marco Pistoia, Conglei Shi, Paolo Girolami, Joseph W. Ligan, and **Yong Wang**. UI X-Ray: Interactive Mobile UI Testing Based on Computer Vision. In *Proceedings of the 22nd International Conference on Intelligent User Interfaces (IUI)*. Limassol, Cyprus, March 2017 (**Best Paper Award**).

[6] **Yong Wang**, Qiaomu Shen, Daniel Archambault, Zhiguang Zhou, Min Zhu, Sixiao Yang and Huamin Qu. AmbiguityVis: Visualization of Ambiguity in Graph Layouts. *IEEE Transactions on Visualization and Computer Graphics (InfoVis 2015)*, 22(1):359–368, 2016.

[7] Xin Zheng, **Yong Wang**, Guoyou Wang and Zhong Chen. A Novel Algorithm Based on Visual Saliency Attention for Localization and Segmentation in Rapidly-Stained Leukocyte Images. *Micron*, 2014(56): 17-28.

[8] Ran Wang, Guoyou Wang, Zhong Chen, Zhigang Zeng and **Yong Wang**. A palm vein identification system based on Gabor wavelet features. *Neural Computing and Applications*, 24(1): 161-168, 2014.

[9] **Yong Wang**, Guoyou Wang, Ran Wang, Yuanchun Xia and Zhong Chen. A Novel and Robust Algorithm for License Plate Location Using Perceptual Salient Features. In *Proceedings of 2013 International conference on Advances in Industrial Control, Electronics and Computer Engineering*. Kinston, Canada, May 2013.

[10] Xin Zheng, Guoyou Wang, **Yong Wang**. White Blood Cell Segmentation Using Expectation-Maximization and Automatic Support Vector Machine Learning. *Journal of Data Acquisition and Processing (Chinese)*, 2013, 28(5): 614-619.

Patents [11] Guoyou Wang, **Yong Wang**, Xin Zheng and Ran Wang. A Precise Segmentation Method and System Based on SVM for White Blood Cell Images. *Chinese Patent: CN103473739 A*, 2013-12-25.

Awards and Honors

2017 **ACM IUI Best Paper Award.**

2016 **HKUST Overseas Research Award.**

2013 **National Scholarship**, aimed for top 3 %.

2011
2013 **HUST 1st Prize Graduate Scholarship for three times.**

- 2008 **People's scholarship for six times.**
- 2011 **3rd Prize of Mathematical Modeling Contest in Northeastern China.**
- 2010 **3rd Prize of Mathematical Modeling Contest in Northeastern China.**
- 2009 **2nd Prize of Bionic Robot Contest of HIT, ranked top 6 %.**
- 2007 **Merit Student of Hunan Province, only 2/1500 students in my school got it.**

Teaching Experience

- 2015 **Teaching Assistant, Comp2012: Object-Oriented Programming and Data Structures, HKUST.**
- 2015 **Teaching Assistant, Comp1022p: Introduction to Computing with Java, HKUST.**

Professional Services

- Reviewer IEEE VIS (InfoVis, VAST and SciVis) Conference, 2016, 2017
 The Thirty-First AAAI Conference on Artificial Intelligence (AAAI), 2017
 The ACM CHI Conference (CHI), 2017
 IEEE Pacific Visualization (PacificVis) Symposium, 2015, 2017
 IEEE Eurographics/VGTC Symposium on Visualization (EuroVis), 2016
 The 3rd China Visualization and Visual Analytics Conference (ChinaVis), 2016
 ACM Transactions on Interactive Intelligent Systems (TiiS), 2017
 Micron, 2014
- Volunteer IEEE VIS Conference, Chicago, USA, 2015

Skills

- Programming Proficient in Javascript, C/C++, Python, HTML, PLC; Familiar with Matlab, JAVA
- Tools D3, MongoDB, MySQL, Pymongo, OpenCV, AngularJS, Three.js, Vuejs, L^AT_EX
- Languages Chinese Mandarin (native), English (professional working proficiency)