

Panpan (盼盼) Xu (徐)

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Summary

I am a PhD candidate in Hong Kong University of Science and Technology. My research focus is in information visualization, esp. heterogeneous graph data visualization and visual analysis of social media data. I am interested in combining analysis and interactive visualization techniques to gain insight into large and complex data.

Education

2010–Now **Ph.D Candidate, Computer Science**, Hong Kong University of Science and Technology.
2005–2009 **B.S., Computer Science**, Zhejiang University (Chu Kochen Honors College).

Ph.D Qualification Exam

Title A Survey on Visual Analysis of Graphs
Supervisor Prof. Huamin Qu

Bachelor's Thesis

Title Physically Realistic Flow Simulation in Computer Animation
Supervisor Prof. Xiaogang Jin

Developed a prototype system for simulating and rendering visual effects of flows like smoke and fire, speeded by utilizing graphics hardwares.

Internship and Visiting Experiences

Now **Visiting Student**, Information Interface Lab (IILab) at Georgia Institute of Technology, Mentor: Prof. John Stasko.
2012–2013 **Research Intern**, Microsoft Research Asia, Mentor: Dr. Yingcai Wu.

Publications

J-2013 Visual Analysis of Topic Competition on Social Media. *in IEEE Transactions on Visualization and Computer Graphics (accepted by IEEE Visual Analytics Science and Technology)*

Panpan Xu, Yingcai Wu, Enxun Wei, Tai-Quan Peng, Shixia Liu, Jonathan J.H. Zhu, Huamin Qu.

Developed a framework combining text and time series analysis techniques with interactive visualization to gain insight into the dynamics of the users' influence and the competition among the topics for users' attention on social media.

J-2013 Visual Analysis of Set Relations in a Graph. *in Computer Graphics Forum (Proceedings of EuroVis)*

Panpan Xu, Fan Du, Conglei Shi, Nan Cao, Hong Zhou, Huamin Qu.

Developed visualization techniques to analyze the homophily effect in a social network, and proposed a set visualization method employing the metaphor of railway maps.

J-2013 Edge Bundling in Information Visualization. *in Tsinghua Science and Technology*
Hong Zhou, **Panpan Xu**, Xiaoru Yuan, Huamin Qu

Surveyed edge bundling techniques used to reduce edge cluttering and to facilitate connection pattern detection in graph drawing.

J-2012 RankExplorer: Visualization of Ranking Changes in Large Time Series Data. *in IEEE Transactions on Visualization and Computer Graphics (Proceedings of InfoVis)*

Conglei Shi, Weiwei Cui, Shixia Liu, **Panpan Xu**, Wei Chen, Huamin Qu.

Visualize the ranking change among a large number of items such as search phrases, which are ranked by their popularity and constantly changes overtime.

C-2012 Visualization of Taxi Drivers' Income and Mobility Intelligence. in *International Symposium on Visual Computing*

Yuan Gao, **Panpan Xu**, Lu Lu, He Liu, Siyuan Liu, Huamin Qu

C-2011 Visual analysis of people's mobility pattern from mobile phone data. in *International Symposium on Visual Information Communication and Interaction*

Jiansu Pu, **Panpan Xu**, Huamin Qu, Weiwei Cui, Siyuan Liu, Lionel M. Ni

Miscellaneous Projects

2014 Citation Visualization for VIS 25 Anniversary. Collaborated with IILab in Georgia Tech and developed visualizations for exploring and analyzing the publications in VIS conferences **Demo**

2013 Visual Analysis of Mobile Checkin Data. Collaborated with Huawei Noah's Ark Lab and developed an interactive visualization system for visualizing large scale spatial-temporal data

Technical Skills

Languages Java, JavaScript, Python, C/C++, R

Visualization D3.js, Prefuse

Libs

Graphics WebGL, OpenGL, Shader Language (GLSL)

Others Version Control Systems (Git), Web Development (html, css, javascript), Databases (MySQL, SQLite), Graphic Design Softwares (Adobe Illustrator), etc.

Teaching Assistant Experience

2010-2013 Design and Analysis of Algorithms

2011, 2013 Computer Graphics

2010 Object-Oriented Programming and Data Structures

Awards and Scholarships

2014 HKUST Overseas Research Award

2013 VIS Doctoral Colloquium Student Travel Grant

2010-2013 HKUST Research/Teaching Assistant Studentship

2006-2008 Zhejiang University Academic Scholarships

2007 Mathematical Modeling Contest 1st Prize in Zhejiang Province

2007 The 5th Mathematical Modeling Contest of Zhejiang University, 2nd Prize

Professional Activities

2013 Doctoral Colloquium at VIS'13

2013 Student Volunteer at VIS'13

Languages

Chinese Mother tongue

English Fluent (Toefl 104/120, taken in 2008)