BIYE JIANG

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EDUCATION

University Of California, Berkeley *August 2013 - Present*
PhD Candidate in Computer Science
Advisor: Prof. John Canny

Tsinghua University August 2009 - July 2013
B.Eng in Computer Science & Technology

RESEARCH INTEREST

Information Visualization, Behavioral data mining, Graphics, Information Retrieval
–I am interested in helping human and computer understand each other. This includes helping human understand those large scale data by using visualization and machine learning algorithms; and also includes modeling human behavior in order to improve user experience.

PUBLICATIONS

Zhicheng Liu, Biye Jiang, and Jeffrey Heer. immens: Real-time visual querying of big data. *Computer Graphics Forum (Proc. EuroVis)*, 2013

S Hu, Kun Xu, L Ma, Bin Liu, B Jiang, and J Wang. Inverse image editing: recovering a semantic editing history from a before-and-after image pair. *ACM Transactions on Graphics (TOG)*, 32(6):194, 2013

L Ma, Kun Xu, T Wong, B Jiang, and S Hu. Change blindness images. *IEEE TVCG*, 2013

RESEARCH EXPERIENCE

Graduate Student Researcher Aug 2013 - Present
Advisor: Prof. John Canny *The Berkeley Institute of Design*

· We analyze student log data from edX.org and build visualizations to help instructors figure out potential problems of students' learning progress.

Research Intern on Image processing Sep 2012 - Jan 2013
Advisor: Prof. Kun Xu and Prof. Shimin Hu *Graphics Computing Group, Tsinghua*

· This project focus on recovering image editing operator given the edited image and the source.

Stanford Undergraduate Visiting Research Program Summer 2012
Advisor: Prof. Jeffrey Heer *Visualization Group, Stanford*

· Project: Interactive Visual Analysis of Large Scale Geographic Data using WebGL
· Our novel approach applies WebGL-based parallel computation to enable rapid interaction in browsers.
· Much faster for data aggregation and rendering comparing to conventional SVG approach.

Student Research Training Program Jun 2011 - Jan 2012
Advisor: Prof. Kun Xu *Graphics Computing Group, Tsinghua*

· Our project focusing on the interesting human vision phenomenon called change blindness. We also provided a new saliency model to measure such difficulty.

SELECTED COURSE PROJECTS

Visualization (CS 294)
–We aims to build an spatial-temporal image analysis system for visualizing and understanding multiple time-series image data.

Advanced Topics in Computer Systems (CS 262A)
–We are trying to build a system that has a mid-layer between visualization and database to automatically manage/optimize the data flow between them.

Statistical Models: Theory and Application (STAT 215A)
–Work on the fMRI data which measures the brain's responses to visual images

TECHNICAL STRENGTHS

Programming Languages	C/C++, JavaScript, Scala, Java, R, Python, SML, Racket, MATLAB
Tools, Libraries	D3, WebGL, OpenCV, Spark, Lucene, CUDA, Hadoop, MPI, OpenMP

COMPETITION AWARD

ACM International Collegiate Programming Contest 2009 - Present
–Champion in Pacific NorthWestern Region Contest (Advancing to the World Finals) 2013
–Champion in Asia Hangzhou Regional Contest 2012

Baidu A-Star Programming Competition 3^{rd} Place out of over 30,000 contestants 2011

Youdao Programming Competition 5^{th} Place out of over 21,000 contestants 2010

National Olympic in Informatics Competition 6^{th} Place out of 295 contestants 2008

TEACHING EXPERIENCE

Lectures for ACM-ICPC team from Beijing Institute of Technology May 2011
–String Matching, Network Flow and Tree Algorithms

Teaching Assistant at Tsinghua University Sep 2009 - Jan 2010
–Fundamentals of Programming

Lectures for Summer School of Olympic in Informatic at LiaoNing Province Jul 2009
–Dynamic Programming and Graph Algorithms

SCHOLARSHIP

ChangHong Scholarship 2012
Sohu Scholarship 2011
ChangHong Scholarship 2010
Freshman Scholarship 2009

SOCIAL ACTIVITY

Vice president in the student association, in charge of **public relations**
Experience with **Photoshop** and **Premiere** to design posters and videos
Director and editor of three short films made by our own.