BIYE JIANG

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EDUCATION

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

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

RESEARCH INTEREST

I am interested in building toolkits for modern data scientists who will usually work on prototyping new models or running experiments on large scale dataset. Our methodology includes but not limit to using hardware accelerations like GPU, providing implementation framework for machine learning algorithms, building visual interface for real-time control and monitoring.

I believe boosting low-level machine performance and improving human productivity are both important for modern data analytic tasks. My research is also trying to bridge the gap between users and the complex machine learning systems.

PUBLICATIONS

Huasha Zhao, Biye Jiang, and John Canny. Same but different: Fast and high-quality gibbs parameter estimation. *arXiv preprint arXiv:1409.5402*, 2014

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 *Berkeley Institution of Design*

- Working on the BIDMach (A GPU accelerated machine learning library) project.
- Fast Gibbs sampler for LDA model with real-time user control.
- A general visual interface for parameter tuning and model averaging.

Research Intern at Adobe Summer 2014
Work with: Zhicheng Liu, Mira Dontcheva, Wilmot Li, Jovan Popovic *Adobe Research*

- Building toolkits to help people easily create Infographics without writing code.

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.

Research Intern on Image processing Jun 2011 - Jan 2013
Advisor: Prof. Kun Xu and Prof. Shimin Hu *Graphics Computing Group, Tsinghua*

· Project focusing on recovering image editing operator given the edited image and the source.
· Project focusing on the interesting human vision phenomenon: change blindness. Developing saliency model to measure such difficulty.

TECHNICAL STRENGTHS

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

TEACHING EXPERIENCE

Graduate Student Instructor Fall 2014
–CS194/294 Introduction to Data Science

COMPETITION AWARD

ACM International Collegiate Programming Contest 2009 - Present
–Champion in Pacific NorthWestern Region Contest (Advancing to the World Finals) 2014
–Champion in Asia Hangzhou Regional Contest 2012

Student Cluster Challenge at International Supercomputing Conference	2^{nd} Place	2013
Asia Student Supercomputer challenge	Champion	2013
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