BIYE JIANG

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EDUCATION

Tsinghua University   *Since August 2009*
B.Eng in Computer Science & Technology
Overall GPA: 90.26   Rank 15/137   Major GPA: 91.47

RESEARCH INTEREST

Intelligent Interface, Data Visualization, Graphics, Information Retrieval
I am interested in providing high-quality information interfaces that improve our ability to make sense of large and complex data

RESEARCH EXPERIENCE

Research Intern on Interactive Image processing   Sep 2012 - Present
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.
· Dynamic rendering is more flexible comparing to Mircosoft HotMap

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

· Basic research skills training. Working on Image-Processing projects with graduate students.
· Experience in Texture synthesis, Image Blending, Saliency Model etc.
· Submitted paper: Change Blindness Images (Focusing on an interesting human vision phenomenon)

SELECTED COURSE PROJECTS

Service Oriented Software Design and Development
–Build a web service to compute words' relationship with the help of WordNet and HowNet

Search Engine
–Build our own search engine using Lucene for indexing and Heritrix for web spider.

Database Management
– Implement our own database for TPCC & TPCH test using C++ (Top three in the class)
– Implement a location based data search engine as web service

Computer Architecture Related
–Build our own CPU with the simplified MIPS16e using VHDL. (Team leader of the group)
–CUDA programing projects and JWAC Memory Scheduling Championship
–Simplify OpenCV library for Yocto OS on the Intel Atom platfrom

Cryptography
–A project focuses on security problems of Content Centric Network

TECHNICAL STRENGTHS

Computer Languages	C/C++, Java, JavaScript, Scala, Python, MATLAB, Assembly, VHDL
Tools	OpenCV, WebGL, Lucene, D3, CUDA, Hadoop

COMPETITION AWARD

ACM International Collegiate Programming Contest   2009 - Present
–Got 8 gold medals (Champion once and Ranked 2nd for 3 times) in Asia Regional Contest

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

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

National Olympic in Informatics Competition 6th 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 two short films made by our own.