

# BIYE JIANG

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## EDUCATION

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**Tsinghua University**

*Since August 2009*

B.Eng in Computer Science & Technology

Overall GPA: 90.26    Rank 15/137    Major GPA: 91.47

## RESEARCH INTEREST

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**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

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**Research Intern on Interactive Image processing**

Sep 2012 - Present

*Advisor: Prof. Kun Xu and Prof. Shimin Hu*

*Graphics Computing Group, Tsinghua*

- Working on Inverse Image Editing, cooperated with WangJue from Adobe Inc.

**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 comparing to conventional SVG approach.
- Dynamic rendering is more flexible comparing to Microsoft HotMap

**Student Research Training Program**

Apr 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

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**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 & TPCCH 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 platform

**Cryptography**

–A project that analyzes the security of Content Centric Network. Advised by Prof. Zhen Chen

## TECHNICAL STRENGTHS

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

## COMPETITION AWARD

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<b>ACM International Collegiate Programming Contest</b>	2009 - Present
–Got 8 gold medals (Champion once and Ranked 2 <sup>nd</sup> for 3 times) in Asia Regional Contest	
<b>Baidu A-Star Programming Competition</b>	3 <sup>rd</sup> Place out of over 30,000 contestants 2011
<b>Youdao Programming Competition</b>	5 <sup>th</sup> Place out of over 21,000 contestants 2010
<b>National Olympic in Informatics Competition</b>	6 <sup>th</sup> Place out of 295 contestants 2008

## TEACHING EXPERIENCE

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<b>Lectures for ACM-ICPC team from Beijing Institute of Technology</b>	May 2011
–String Matching, Network Flow and Tree Algorithms	
<b>Teaching Assistant at Tsinghua University</b>	Sep 2009 - Jan 2010
–Fundamentals of Programming	
<b>Lectures for Summer School of Olympic in Informatic at LiaoNing Province</b>	Jul 2009
–Dynamic Programming and Graph Algorithms	

## SCHOLARSHIP

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<b>ChangHong Scholarship</b>	2012
<b>Sohu Scholarship</b>	2011
<b>ChangHong Scholarship</b>	2010
<b>Freshman Scholarship</b>	2009

## SOCIAL ACTIVITY

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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.