

# Shuai Yuan

Department of Computer Science  
National Tsing Hua University  
Mobile: (0886)988473989/(86)13539623264  
Email: yszheda@gmail.com  
Personal Profile: <http://yszheda.github.io>  
Blog: <http://galoisplusplus.gitcafe.com>

## Education

- Master in Computer Science, National Tsing Hua University, Taiwan, 2014 (GPA: 4.23/4.3).
- Bachelor in Computer Science and Technology, Zhejiang University, China, 2012 (GPA: 3.84/4.0).

## Honor and Awards

- Scholarship:
  - Second prize of outstanding student scholarship and scholarship for academic, 2008–2009.
  - Third prize of outstanding student scholarship and scholarship for academic, 2009–2010.
  - Second prize of outstanding student scholarship and scholarship for academic, 2010–2011.
  - Hong Hai/Foxconn scholarship, 2012–2013.
- Honor: outstanding student, 2008–2009, 2009–2010, 2010–2011.
- Awards:
  - Second prize of Zhejiang Province Calculus Contest, 2009.
  - Third prize of Zhejiang University ACM Programming Contest, 2009.
  - Second prize of Zhejiang University-Intel Embedded Online Contest, 2010.
  - Outstanding thesis paper among undergraduate students, 2012.

## Current Research Fields

Cloud Storage System, Erasure Codes.

## Research Experiences

- Lab member of Large-scale System Architecture (LSA) Lab, National Tsing Hua University, 2012–Current.
- Research intern in LRI (Laboratoire de Recherche en Informatique) of the University of Paris XI, France, 2011,10–2012,4.
  - Work on “automated constraint verification for databases” under the guidance of Prof. Véronique Benzaken and Prof. Évelyne Contejean.
- Lab member of Microsoft Visual Perception Laboratory of Zhejiang University, 2010–2012.
  - Work on “scene audio recognition of images” under the supervision of Prof. Mingli Song.

## Project Experiences

- sim-outorder-extend: extensions for the `SimpleScalar` sim-outorder simulator, 2013/3–2013/5.
  - Written in C. Source code is available on Github: <https://github.com/yszheda/sim-outorder-extend>
- GPU-RSCode: a GPGPU approach to accelerating Reed-Solomon codes for fault-Tolerance in RAID-like system, 2012/12–2013/3.
  - Written in CUDA C. Source code and documents are available under GPLv3: <https://github.com/yszheda/GPU-RSCode>
  - Under our experimental settings, we have achieved a maximum speed-up of approximately 90 over the performance of traditional CPU-based Reed-Solomon Codes.
- assertion-verification: implementation of the thesis “automated constraint verification for databases”, 2011/9–2012/3.
  - Written in Ocamllex and Ocaml yacc. Source code is available on Github: <https://github.com/yszheda/assertion-verification>
- E-go: an online shopping system, 2011/3–2011/6.
  - My role: a developer who is responsible for the search and user information modules.
  - Written in JSP/Servlet. Source code and executable files are available on Google Code: <https://code.google.com/p/e-go/>
- regex-engine: a Boost::regex based engine that supports regular expression matching, searching and replacement, 2010/10–2011/5.
  - This project was awarded as outstanding 2010–2011 Student Research Train Program (SRTP) project of College of Computer Science and Technology in Zhejiang University.
  - My role: a team leader and a programmer.
  - Written in C++. Source code and executable files are available on Google Code: <http://code.google.com/p/regex-engine/>

For more projects, please refer to my profile on:

- Github: <http://github.com/yszheda>
- Google code: <https://code.google.com/u/yszheda@gmail.com/>

## Skills

- Programming Language: C, C++, Java, Matlab/Octave, Verilog HDL, Shell script(mainly bash), Ocaml.
- Framework/API: Hadoop, CUDA, MPI, OpenGL, etc.
- Operating System: GNU/Linux (Currently an ArchLinux user), Windows.
- Version Control Tools: git, svn, cvs.
- IDE: Eclipse, Visual Studio, Xilinx ISE.
- Documentation:  $\text{\LaTeX}$