

# Shuai Yuan

Mobile game developer in Xinyoudi Studio, Leqee Company

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## 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

- Honor:
  - outstanding employee in Leqee Company, 2014–2015.
  - outstanding student in Zhejiang University, 2008–2009, 2009–2010, 2010–2011.
- Scholarship:
  - Hong Hai/Foxconn scholarship, 2012–2013.
  - Second prize of outstanding student scholarship and scholarship for academic, 2010–2011.
  - Third prize of outstanding student scholarship and scholarship for academic, 2009–2010.
  - Second prize of outstanding student scholarship and scholarship for academic, 2008–2009.
- Awards:
  - Outstanding thesis paper among undergraduate students, 2012.
  - Second prize of Zhejiang University-Intel Embedded Online Contest, 2010.
  - Third prize of Zhejiang University ACM Programming Contest, 2009.
  - Second prize of Zhejiang Province Calculus Contest, 2009.

## Career Experiences

- Mobile game developer in Xinyoudi Studio, Leqee Company, 2014/7–current.
  - Join a startup team and develop a 2D mobile game (now available on **Google Play** and **App Store**).
  - As a leading client developer, I get my hands dirty on development using **cocos2d-x** and **quick-cocos2d-x**. Besides, I also take part in server development using **OpenResty**.
  - My main contributions include:
    - \* Trace errors and crash, work on fixing or workarounding upstream bug, some of the patches are accepted by quick-cocos2d-x (**PR#407**, **PR#438**, **PR#440**).
    - \* Customize UI widgets, some of them are available on Github: **GridView**, irregular button, and **quickx-extensions**.

- \* Write Bash or Python scripts for automate workflow, sorting and distribution of errors and crashes, server API press test, etc.
- \* Develop multiple modules in our game.
- \* Improve client UI workflow for better performance.
- \* Code review of our client source code.
- \* Use Docker for quick deployment and scaling up.

## Project Experiences

- GPU-RSCode: a GPGPU approach to accelerating Reed-Solomon codes for fault-tolerance in RAID-like system, 2012/12–2014/5.
  - Written in CUDA C/C++. Source code and documents are available under GPLv3: <https://github.com/yszheda/GPU-RSCode>
  - We present an optimized GPU implementation of Reed-Solomon Codes, which can achieve a speedup of 14.71 over the current best CPU implementation Jerasure.
- assertion-verification: automated compile-time constraint verification for databases based on the weakest precondition and predicate transformer approaches, 2011/9–2012/3.
  - Written in Ocamllex and Ocamllyacc, use program verification platform Why3. Source code is available on Github: <https://github.com/yszheda/assertion-verification>

I have made some contributions to the following open-source projects:

- Multi-platform game framework: `cocos2d-x` and `quick-cocos2d-x`.
- Octopress plugin: `octopress-syncPost` (PR#8 & PR#9, one accepted).
- Utilities for nginx module development `openresty-devel-utils` (a simple patch PR#9 for lua-releng, accepted).
- Python wrapper for extended filesystem attributes: `xattr` (a simple patch PR#8, accepted).

## Research Experiences

- Lab member of Large-scale System Architecture (LSA) Lab, National Tsing Hua University, 2012–2014: work on “Accelerate Reed-Solomon Codes on GPUs” under the supervision of Prof. Jerry Chou.
- 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.

## Skills

- Programming Language: Lua, C, C++, Verilog HDL, script(mainly bash), etc.
- Framework/API: cocos2d-x, quick-cocos2d-x, CUDA, OpenResty, etc.
- Version Control Tools: git, svn (As a git fan, now I prefer git-svn instead XD).
- IDE: Eclipse, Visual Studio, Xilinx ISE, XCode, etc. (Now I use the editor vim instead XD)
- Documentation:  $\text{\LaTeX}$

## Interests

- violin, Classical music, badminton, hiking, table tennis