

# Yangqingwei Shi

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## EDUCATION & EXPERIENCE

- 2012-PRESENT BS Candidate in Computer Science, School of Electronic Engineering and Computer Science, **Peking University**  
TOTAL GPA: 3.68/4.00 | MAJOR GPA: 3.72/4.00  
TEACHING ASSISTANT: Algorithm Design and Analysis
- 2014-PRESENT Research Assistant at Software Engineering Institute, **Peking University**  
RESEARCH FIELDS: Software Testing; Program Analysis & Optimization | ADVISOR: Yingfei Xiong
- JULY 2015 Research Internship at Computer Science Department, **Carnegie Mellon University**  
RESEARCH FIELDS: Programming Languages; Software Architecture | ADVISOR: Jonathan Aldrich

## AWARDS

- OCT. 2013 Outstanding Academic Award of Peking University  
MAY. 2014 3rd Prize of 13th ACM Programming Contest in Peking University  
OCT. 2014 Wusi Scholarship of Peking University

## RESEARCH PROJECTS

- ONGOING **Dynamic Mutation Analysis** (Software Testing, Program Analysis | C++)  
A novel model of mutation analysis that analyzes mutants during the execution of the program, and forks the execution only when a mutant leads to a new system state.  
Supervised by Yingfei Xiong, Software Engineering Institute, Peking University  
Paper submitted to ICSE 2016
- 2015 **Module System for Architectural Control** (Software Architecture, Programming Languages | Java)  
A module system based on Wyvern Language to enforce the architectural behavior by integrating these architectural descriptions directly into the language.  
Supervised by Jonathan Aldrich, Institute of Software Research, Carnegie Mellon University
- 2014-2015 **Contextual Dynamic QR Code** (Mobile Computing | HTML+Servlet+Android)  
A novel QR code system which accepts inputs from many phone sensors besides the phone camera, and dynamically vary its output according to various contexts where the code is published.  
Supervised by Kaigui Bian, Institute of Network Computing and Information Systems, Peking University  
Paper submitted to IEEE ICC 2016  
Patent accepted by State Intellectual Property Office of China.

## COURSE PROJECTS

- FALL 2012 Poem Search Engine Based on LSI System (C+MATLAB)  
FALL 2013 Vi-like Text Editor Based on NCurses (C++)  
FALL 2013 ICS Labs (Data, Bomb, Attack, Arch, Cache, Malloc, Shell, Proxy)  
SPRING 2014 A Scheme Metacircular Evaluator (Scheme)  
SPRING 2014 Metaheuristics for Float-Point Inaccuracy Detection  
FALL 2014 5-Step MiniJava to MIPS Compiler (Java)  
SPRING 2015 TuanJuPKU, a Platform for PKU Unions (Android+HTML)  
SPRING 2015 A Programming Language for Complexity Control (OCaml)  
SPRING 2015 Face Mock Show on WebChat (HTML+Python)

## SKILLS

- PROGRAMMING: Java, C, C++, Python, Web, Scheme, OCaml, Android  
TOOLS: Linux, Git, LaTeX, MATLAB  
ENGLISH: TOEFL 106 (R28+L27+S23+W28)

## INTERESTS

Accordion (Level 10, Top level), WeiQi (Amateur Don 2, Near Professional), Chinese Calligraphy (Level 5), Classical Music, Hi-Fi, Golf, Soccer, Coffee, Photography, Bridge.