

# Yangqingwei Shi

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## EDUCATION & PROFESSIONAL EXPERIENCE

- SEP 2012-PRESENT BS Candidate in Computer Science, **Peking University**  
OVERALL GPA: 88.4/100 | MAJOR GPA: 89.5/100  
Member of PKU-CS Top Elite Plan (for top 10% students)
- MAY 2014-PRESENT Research Assistant at Software Engineering Institute, **Peking University**  
FIELDS: Software Testing; Program Analysis & Optimization | ADVISOR: Dr. Yingfei Xiong
- JUL 2015-SEP 2015 Research Internship at Computer Science Department, **Carnegie Mellon University**  
FIELDS: Programming Languages; Software Architecture | ADVISOR: Dr. Jonathan Aldrich
- FEB 2014 -JUN 2014 Teaching Assistant, School of Electronics Engineering and Computer Science, **Peking University**  
COURSE: Algorithm Design and Analysis | SUPERVISOR: Dr. Haiyan Zhao

## RESEARCH PROJECTS

- MAY 2014-PRESENT **Dynamic Mutation Analysis** (Software Testing, Program Analysis | C++)  
Advisor: Dr. Yingfei Xiong Software Engineering Institute, Peking University  
– Developed a novel model of mutation analysis that analyzed mutants during the execution of the program, and forked the execution only when a mutant led to a new system state;  
– Prepared the manuscript and submitted to ICSE 2016, pending review; Corresponding poster exhibited in PKU Young Scientist Symposium 2015.
- JUL 2015-OCT 2015 **Language Based Architectural Control** (Software Architecture, Programming Languages | Java)  
Advisor: Dr. Jonathan Aldrich Institute of Software Research, Carnegie Mellon University  
– Extended a module system based on Wyvern Language to enforce the architectural behavior by integrating these architectural descriptions directly into the language.  
– Included the implementation in a paper and submitted to ECOOP 2016, pending review;
- SEP 2014-OCT 2015 **Contextual Dynamic QR Code** (Mobile Computing | HTML+Servlet+Android)  
Advisor: Dr. Kaigui Bian Institute of Network Computing and Information Systems, Peking University  
– Initiated a novel QR code system which accepted inputs from many phone sensors besides the phone camera, and dynamically varied its output according to various contexts where the code is published;  
– Corresponding patent accepted by State Intellectual Property Office of China; Manuscript submitted to IEEE ICC 2016, pending review.

## AWARDS

- Nov 2015 3rd Prize of Peking University Young Scientists Symposium (top 10%)  
Oct 2014 Wusi Scholarship of Peking University (top 10%)  
MAY 2014 3rd Prize of 13th ACM Programming Contest in Peking University  
Oct 2013 Outstanding Academic Award of Peking University (top 10%)

## COURSE PROJECTS

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

## SKILLS

- PROGRAMMING: Proficient in Java, C, C++, Web Programming;  
Familiar with Functional Programming, Android;  
TOOLS: Proficient in Linux, Git, LaTeX;  
STANDARD TESTS: TOEFL 106 (R28+L27+S23+W28) | GRE V157+Q170+AW3.5