Bowen Cai

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Chinese with F1 Visa
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Education	**Master of Science in Computer Science**, Texas A&M University, U.S.A. GPA: 3.38. Advisor: Dr. Jeff Huang.	Jan 2016 – Dec 2017 (expected)
	B.E. in Computer Science. Northwestern Polytechnical University, P.R. China GPA: 84/100, top 10%.	Sept 2011 – Jun 2015
	Exchange student at the Delft University of Technology**,** the Netherlands.	Oct 2014 – Mar 2015

Skills

Proficient in **Scala**, **C++**, good at **Python**, **C#.**
Work experience with **MySQL, Java EE,** and **HTML5.**
Experience in **LLVM** (research projects), **GTest**, **TestNG, cryptography, network programming.**
Basic Client-side develop skills with **Qt**, **Swing**, **Android.**
Effective communication and collaboration skills.

Experience

Internship at **Alibaba-Inc**, server-side Java developer, got a return offer.   *July – Oct 2014*

1. Improved Wangqi 2.0, added new interfaces.
2. In WangXin 3.0 project, implemented commenting and voting functions on the server-side with Spring, designed and implemented admin web console.

Internship at **Zhuoyuan Information Technology**, front-end developer.   *Jul – Aug 2013*

presented and synced data using ExtJS and Springframework.

RoboCup 3D Simulation Team, developer.

program robot players, improve its speed and stability.   *Aug – Dec 2012*

Projects

1. Research in Program Analysis and Concurrent Bug Detection:
   a) Shiyou Huang, **Bowen Cai**, Jeff Huang. Towards Production-Run Heisenbugs Reproduction on Commercial Hardware. USENIX ATC2017. Implemented Ball-Larus path profiling in LLVM and tested it on several large programs.
   b) **Bowen Cai**. Code Parallelization through Sequential Code Search. Student Research Competition, ICSE 2016. Implemented a prototype code search engine (Github CodeSniffer)
   c) Implemented and tested a new redundant event filter for ThreadSanitizer (Github Tree-CPP).
   d) Developed a use-after-free detector for multithreaded programs on LLVM.
2. Advanced Compiler Design Course: developed several code optimization algorithms on MiniPolaris.
3. Program runtime monitor and analyze (PRMA): a distributed logging backend server for monitoring application servers and localizing bugs, implemented in Scala with AKKA.
4. Slingshot: a simple functional language implemented in C#.
5. eBay-like online C2C (Spring 2014): as the leader of a 13-man team, we developed a complete online C2C shopping website, including searching, transaction, advertising, and admin consoles for seller/buyer.
6. Gplume (Fall 2013): designed and implemented a Java/Scala web framework (similar to Springframework), it supports dependency injection, JSP, JSON, JDBC, Web MVC, etc. Several websites were built using my framework.
7. Some other fun spare-time programs on Github (github.com/xkommando).