Kaituo Li

kaituo@cs.umass.edu • +1 (413) 887-9355 • `http://people.cs.umass.edu/~kaituo/`

Education

University of Massachusetts, Amherst	Amherst, MA

Ph.D. in Computer Science *September 2009 – September 2016 expected*
Topic: Combining Static and Dynamic Analysis for Bug Detection and Program Understanding
Overall GPA: 3.67

Zhejiang University	Hangzhou, China

M.E. in Software Engineering, Summa cum laude *September 2007 – May 2009*
Overall GPA: 3.88

Jilin University	Changchun, China

B.E. in Software Engineering, Summa cum laude *September 2003 – May 2007*
Overall GPA: 3.83

Experience

University of Massachusetts, Amherst	Amherst, MA

Research Assistant to Prof. Yannis Smaragdakis *Sep 2009 – Jan 2012*
My research focused on advanced program analysis to detect program bugs and obtain program specification. The biggest practical application of these techniques is improving software reliability for languages such as Java and Pig Latin. For example, one of my projects addressed the problem of automatically generating test cases for Hadoop MapReduce programs. **Resulted in ACM SIGSOFT Distinguished Paper Award.**

Lattice Engines, Inc.	Boston, MA

Engineering Intern *Summer 2014*
Created a data mining system that can forecast the time required to complete a job in the Lattice SaaS platform, which can vary for a number of reasons: variance in input data set size, hardware resources, software modifications, network availability, network traffic, etc. This work includes statistical modeling, and building infrastructure to efficiently store, analyze and extract data.

NEC Laboratories America	Princeton, NJ

Research Intern *Summer 2013*
I have designed and implemented a domain-specific language (DSL) for distributed systems in which testers can quickly express potential buggy scenarios by expressing the specific workload needed to trigger the bug, system events and their order that would lead to the bug, and any external events like garbage collection, node crash, or network failures that are also responsible for the bug. The DSL makes it easy for testers to specify all aspects of a bug (workload, event order, etc.) in one place.

OriginLab Inc.	Northampton, MA

Software Engineer In Test Intern *Summer 2012*
Implemented and maintained automated tests in C# and Ranorex. Worked with development and test engineers to identify software defects.

Skills

Software Tools	Matlab, Ant, Junit, Z3, Origin, Ranorex, scikit-learn, Pandas, JAMS (proficient); Mathematica, LINDO, LINGO, GNU Make, Maven (prior experience)
Programming	Java, AspectJ (expert); C, C++, SQL, Python, C# (proficient); Bash, Perl, Ruby (prior experience)
Distributed Computing	Cassandra, Pig, Hadoop, Apache Accumulo (proficient)
Networking	XML (proficient); JavaScript, HTML, CSS, ASP, JSP (prior experience)
Database	SQL Server, Oracle, MySQL, DB2, postgreSQL, ODBC, JDBC (prior experience)
IDEs	Eclipse, Visual Studio, Vi (proficient)
Platform	Windows, Linux/Unix (proficient)

Coursework

Machine Learning, Object Oriented Languages, Databases, Operating Systems, Compilers, Computer Architecture, Software Testing, Algorithms, Unix Tools and Scripting, Networks, Data Structure, Probability & Statistics, Artificial Intelligence, Computer Security, Advanced Software Engineering, Design Patterns