Xin Zhang

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EDUCATION

Georgia Institute of Technology, USA 2011 - Present
Ph.D Candidate in Computer Science. GPA: 3.9/4.0
Advisor: Mayur Naik

Shanghai Jiaotong University, China 2007 - 2011
B.E. in Software Engineering. GPA: 3.7/4.0
Ranked 1 out of 120

RESEARCH INTERESTS

I have a broad interest in programming languages and software engineering, including program analysis, program verification and program synthesis, with emphasis on large programs.
My other interests include mobile-cloud computing and approximate computing.

PUBLICATIONS

- Sulekha Kulkarni, Ravi Mangal, **Xin Zhang**, Mayur Naik. Accelerating Program Analyses by Cross-Program Training. ACM Conference on Object-Oriented Programming, Systems, Languages, and Applications (OOPSLA) 2016 (to appear).
- Xujie Si, **Xin Zhang**, Vasco Manquinho, Mikolas Janota, Alexey Ignatiev, Mayur Naik. On Incremental Core-Guided MaxSAT Solving. International Conference on Principles and Practice of Constraint Programming (CP) 2016.
- Ravi Mangal, **Xin Zhang**, Aditya Kamath, Aditya Nori, and Mayur Naik. Scaling Relational Inference Using Proofs and Refutations. Conference on Artificial Intelligence (AAAI) 2016.
- **Xin Zhang**, Ravi Mangal, Mayur Naik, and Aditya Nori. Query-Guided Maximum Satisfiability. ACM Symposium on Principles of Programming Languages (POPL) 2016.
- Ravi Mangal, **Xin Zhang**, Aditya Nori and Mayur Naik. Volt: A Lazy Grounding Framework for Solving Very Large MaxSAT Instances. International Conference on Theory and Applications of Satisfiability Testing (SAT) 2015.
- Jongse Park, Hadi Esmaeilzadeh, **Xin Zhang**, Mayur Naik, and Bill Harris. FlexJava: Language Support for Safe and Modular Approximate Programming. ACM Symposium on Foundations of Software Engineering (FSE) 2015.
- Ravi Mangal, **Xin Zhang**, Mayur Naik, and Aditya Nori. A User-Guided Approach to Program Analysis. ACM Symposium on Foundations of Software Engineering (FSE) 2015. **Distinguished Paper Award.**
- **Xin Zhang**, Ravi Mangal, Radu Grigore, Mayur Naik, Hongseok Yang. On Abstraction Refinement for Program Analyses in Datalog. ACM Conference on Programming Language Design and Implementation (PLDI) 2014. **Distinguished Paper Award.**
- **Xin Zhang**, Ravi Mangal, Mayur Naik, Hongseok Yang. Hybrid Top-down and Bottom-up Interprocedural Analysis. ACM Conference on Programming Language Design and Implementation (PLDI) 2014.

- **Xin Zhang**, Mayur Naik, Hongseok Yang. Finding Optimum Abstractions in Parametric Dataflow Analysis. ACM Conference on Programming Language Design and Implementation (PLDI) 2013.
- Cheng Zhang, Juyuan Yang, Yi Zhang, Jing Fan, **Xin Zhang**, Jianjun Zhao, Peizhao Ou. Automatic Parameter Recommendation for Practical API Usage. International Conference on Software Engineering (ICSE) 2012.

HONORS AND AWARDS

Facebook Fellowship, 2015-2016.

Distinguished Paper Award. The 10th joint meeting of the european software engineering conference and the ACM SIGSOFT symposium on the foundations of software engineering. (8 out of 73 accepted papers)

Distinguished Paper Award. The 35th annual ACM SIGPLAN conference on Programming Language Design and Implementation. (3 out of 52 accepted papers)

Finalist for 2014 Qualcomm Innovation Fellowship. (32 out of 137)

POSITIONS HELD

Research Intern, Microsoft Research Cambridge Summer 2013
Worked with Josh Berdine on **SLAyer**, a formal verification tool for memory safety.

TEACHING EXPERIENCE

CS6340: Software Analysis and Testing, Georgia Tech Fall 2014
Teaching Assistant

CS4400: Introduction to Database Systems, Georgia Tech Spring 2013
Teaching Assistant

SKILLS

Programming languages: Java, C++, C, C#, JavaScript, PHP, OCaml, Datalog.

Tools: IDEs (Eclipse, Visual Studio, Netbeans, Adobe Dreamweaver, Zend Studio), Program Analysis Frameworks (Chord, ASM), Formal Proof Management Systems (Coq), Program Profilers (Yourkit), Compiler Infrastructures (LLVM), Editors (VI).

Natural languages: Mandarin (native speaker), English (fluent).