Ronghui Gu

CONTACT INFORMATION	Department of Computer Science Yale University 51 Prospect Street, New Haven, CT 06511	(203) 430-2840 ronghui.gu@yale.edu http://guronghui.com

EXPERTISE System verification, formal methods, system design, and functional programming

EDUCATION

Yale University, New Haven, CT

Ph.D. in Computer Science	Aug. 2011 - May 2016 (expected)

- Advisor: Prof. Zhong Shao

M.S. in Computer Science	Aug. 2011 - May 2014

- GPA: 3.9 / 4

M.Phil. in Computer Science	Aug. 2011 - May 2014

Tsinghua University, Beijing, China

B.S. in Computer Science	Aug. 2007 - Jul. 2011

- GPA: 91.2 / 100
- Rank: 4 / 118

RESEARCH EXPERIENCE

Research Assistant at Yale University Aug. 2011 - present
- As the team leader, developed CertiKOS, the world's first fully verified hypervisor.
- Developed over 200,000 lines of machine checkable proofs in Coq.

Research Assistant at Tsinghua University Sept. 2009 - May 2011
- Proposed μAIM, a new abstract model for nested interrupts.
- Verified the preemptive scheduling of μC/OS-II.

SELECTED PUBLICATIONS

D. Costanzo, Z. Shao, and **R. Gu**. End-to-End Verification of Information-Flow Security for C and Assembly Programs. *Proceedings of the 37th annual ACM SIGPLAN conference on Programming Language Design and Implementation (PLDI'16), 2016.*

C. Hao, X. Wu, Z. Shao, J. Lockerman, and **R. Gu**. Toward Compositional Verification of Interruptible OS Kernels and Device Drivers. *Proceedings of the 37th annual ACM SIGPLAN conference on Programming Language Design and Implementation (PLDI'16), 2016.*

R. Gu, J. Koenig, T. Ramananandro, Z. Shao, X. Wu, S. Weng, H. Zhang, and Y. Guo. Deep Specifications and Certified Abstraction Layers. *Proceedings of the 42nd ACM SIGPLAN-SIGACT Symposium on Principles of Programming Languages (POPL'15), 2015.*

SELECTED PRESENTATIONS

Yale Programming Languages Day, CT	Nov. 2015
New England Programming Languages and Systems Symposium, CT	June 2015
High Confidence Software and Systems Conference, MD	May 2015
Symposium on Principles of Programming Languages, Mumbai, India	Jan. 2015

SELECTED AWARDS

Robert Willets Carle Scholarship, Yale University	Feb. 2016
Travel Grant, NSF	Jan. 2015
Doctoral Fellowship, Yale University	Aug. 2011
Graduation with Distinction (top 2%), Tsinghua University	Jul. 2011
Outstanding Graduate of Beijing City, China	Jul. 2011
Outstanding Undergraduate Thesis Award, Tsinghua University	Jul. 2011
Sohu Scholarship, Tsinghua University	Oct. 2010
Outstanding Student Leader, Tsinghua University	Mar. 2010
Ticket Master Scholarship, Tsinghua University	Oct. 2009
Outstanding Social Work Scholarship, Tsinghua University	Oct 2008
Elite Youth League Member of Jiangsu Province, China	Apr. 2007

- The only high school student winner within 3 years.

First Prize of National Olympic Mathematics Competition, China	Oct. 2006

TEACHING EXPERIENCE	**Teaching Assistant** at Yale University Fall 2012 - present

- CPSC 458/558 Automatic Decision Systems (Fall 2015)
  Instructor: Dr. Stephen Slade
- CPSC 439/539 Software Engineering (Spring 2015 and Spring 2014)
  Instructor: Prof. Ruzica Piskac
- CPSC 424/524 Parallel Programming Techniques (Fall 2014 and Fall 2013)
  Instructor: Dr. Andrew Sherman
- CPSC 112 Introduction to Programming Languages (Spring 2013 and Fall 2012)
  Instructor: Prof. Drew V. McDermott and Prof. Daniel Abadi

SKILLS   Coq, Java, C/C++, Python, Android, LaTeX