

# Shengyi Wang

Research Area: Programming Languages, Formal Methods, Formal Proof, Program Verification  
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<b>EDUCATION</b>	<b>National University of Singapore</b> , Singapore <ul style="list-style-type: none"><li>■ Ph.D. in Computer Science 2014 – 2020</li></ul> <b>Peking University</b> , Beijing, China <ul style="list-style-type: none"><li>■ M.S. in Applied Mathematics 2007 – 2010</li><li>■ B.S. in Mathematics 2003 – 2007</li></ul>
<b>EXPERIENCE</b>	<b>Princeton University</b> , Princeton, New Jersey, USA <ul style="list-style-type: none"><li>■ Postdoctoral Research Associate, Department of Computer Science Apr 2020 – Present</li></ul> <b>Princeton University</b> , Princeton, New Jersey, USA <ul style="list-style-type: none"><li>■ Research Intern, Department of Computer Science Apr 2018 – Jul 2018<ul style="list-style-type: none"><li>• Project: Formal verification of a garbage collector of the CertiCoq compiler</li><li>• Supervisors: Prof. Andrew Appel</li></ul></li></ul> <b>National University of Singapore</b> , Singapore <ul style="list-style-type: none"><li>■ Research Assistant, School of Computing Mar 2013 – Dec 2013<ul style="list-style-type: none"><li>• Project: HIP/SLEEK, an automatic verification tool.</li><li>• Supervisors: Prof. Wei-Ngan Chin</li></ul></li></ul> <b>Tencent Technology Co., Ltd.</b> , Beijing, China <ul style="list-style-type: none"><li>■ Software Engineer, Social Network Group Jul 2010 – Mar 2013<ul style="list-style-type: none"><li>• Advertise management system and audit system</li><li>• Server-side programming in Java</li></ul></li></ul> <b>IBM Research – China</b> , Beijing, China <ul style="list-style-type: none"><li>■ Research Intern, Group of Information Visualization Mar 2007 – Dec 2007<ul style="list-style-type: none"><li>• Patent CN101593070B: Method and equipment for visualizing a great deal of information</li></ul></li></ul>
<b>PUBLICATIONS</b>	<b>CONFERENCES</b> <ol style="list-style-type: none"><li>[1] Shweta Shinde, Shengyi Wang, Pinghai Yuan, Aquinas Hobor, Abhik Roychoudhury, and Prateek Saxena. BesFS: Mechanized Proof of an Iago-Safe Filesystem for Enclaves. In <i>USENIX Security Symposium</i>, 2020.</li><li>[2] Shengyi Wang, Qinxiang Cao, Anshuman Mohan, and Aquinas Hobor. Certifying Graph-Manipulating C Programs via Localizations within Data Structures. In <i>OOPSLA: Conference on Object-Oriented Programming Systems, Languages, and Applications</i>, 2019.</li><li>[3] Asankhaya Sharma, Shengyi Wang, Andreea Costea, Aquinas Hobor, and Wei-Ngan Chin. Certified Reasoning with Infinity. In <i>FM 2015: Formal Methods</i>, pages 496–513, Cham, 2015. Springer International Publishing. ISBN 978-3-319-19249-9.</li><li>[4] Shengyi Wang, Zongyan Qiu, Shengchao Qin, and Wei-Ngan Chin. Stack Bound Inference for Abstract Java Bytecode. In <i>4th IEEE International Symposium on Theoretical Aspects of Software Engineering</i>, 2010.</li></ol>
<b>PROJECTS</b>	<ul style="list-style-type: none"><li>■ <b>RamifyCoq</b>, a Coq library for verification of graph-manipulating programs.</li><li>■ <b>Memory Analyzer</b>, a program which estimates memory usage through program analysis.</li><li>■ <b>Ferret</b>, a small but full featured computer algebra systems written in Java.</li></ul>
<b>HONORS</b>	<ul style="list-style-type: none"><li>■ Honorable Mention, Mathematical Contest in Modeling 2007, USA. Mar 2007</li><li>■ Social Work Award, Peking University, Beijing, China. Nov 2006</li></ul>
<b>LANGUAGES</b>	<ul style="list-style-type: none"><li>■ Chinese: Native language.</li><li>■ English: Fluent (speaking, reading, writing).</li></ul>
<b>SKILLS</b>	<ul style="list-style-type: none"><li>■ Tools: Blender, Emacs, <math>\LaTeX</math>, Mathematica.</li><li>■ Programming Languages: Coq, C, C++, Haskell, Java, Objective-C, Python.</li></ul>