

# Shiwei Weng

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<b>EDUCATION</b>	Ph.D. Student in Computer Science <b>Johns Hopkins University</b> <ul style="list-style-type: none"><li>Advisor: Scott Smith</li></ul>	Baltimore, MD, USA Aug 2018 – Present
	M.S.E in Computer Science <b>Johns Hopkins University</b>	Baltimore, MD, USA Aug 2016 – Dec 2017
	B.Eng. in Software Engineering <b>Fudan University</b> <ul style="list-style-type: none"><li>Cumulative GPA: 3.48 / 4.00</li></ul>	Shanghai, China Sep 2008 – Jul 2013
	B.S. in Computer Science <b>University College Dublin</b> <ul style="list-style-type: none"><li>Double Degree of Fudan-UCD program.</li></ul>	Dublin, Ireland Sep 2009 – Sep 2013
<b>INTERESTS</b>	Functional Programming, Symbolic Execution, Program Analysis, Model Checking	
<b>WORK EXPERIENCE</b>	<b>Microsoft Research Lab, Redmond</b> Research Intern	Jun 2021 – Aug 2021
	<ul style="list-style-type: none"><li>Worked on Checked C, a Clang-forked extension of C with buffer/memory/casting safety</li><li>Designed and implemented a dataflow analysis to gather pre/post-conditions at statements</li><li>Designed and implemented an SMT-based prover to reduce false-positive compiler warnings</li><li>Mentor: Sulekha Kulkarni</li></ul>	
	<b>Startup Interns &amp; Freelance</b>	Jul 2013 – Sep 2015
	<ul style="list-style-type: none"><li>Software engineer in Miaogu Network, Inc. Ohana Global, Inc. Keniu Information, Inc.</li></ul>	
<b>PUBLICATIONS</b>	<b>Higher-order demand-driven symbolic evaluation, ICFP 2020</b> <ul style="list-style-type: none"><li>Together with Zachary Palmer, Theodore Park, and Scott Smith</li><li>A symbolic backwards execution and a derived test generation algorithm</li><li>Worked on the implementation, designed and conducted the artifact evaluation</li></ul>	
<b>RESEARCH PROJECTS</b>	<b>Symbolic Execution and Model Checking in Functional languages</b> <ul style="list-style-type: none"><li>Continuing of the proof-of-concept work in the ICFP 2020 paper</li><li>Lead the optimization and new features development</li><li>Lead the model checking approach</li></ul>	
<b>PROFESSIONAL EXPERIENCE</b>	<b>Research Assistant</b> The Programming Languages Laboratory at JHU	Jun 2017 – Present
	<b>Teaching Assistant</b> Principles of Programming Languages, Spring 18(head)/19(head)/20/21 Functional Programming in Software Engineering, Fall 20/21	
	<b>System Administrator</b> The Programming Languages Laboratory at JHU <ul style="list-style-type: none"><li>Maintain lab servers for web and DevOps</li><li>Help to organize lab events</li></ul>	Feb 2019 – Present
<b>ACADEMIC EVENTS</b>	Volunteered in SPLASH 2017, SPLASH 2018, ICFP 2020, OCaml 2020 Attended PLISS 2017, PLMW@SPLASH 2017	
<b>SKILLS</b>	Familiar with OCaml, Clang/LLVM Experience in C++, C, Python, JavaScript, Java, Linux operations	
<b>HONORS &amp; AWARDS</b>	National Scholarship, Ministry of Education of the People's Republic of China	Nov 2010
	1st Prize, The 13th National Olympiad in Informatics in Provinces(NOIP) China Computer Federation	Dec 2007