

Shiwei Weng

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