

Anton Xue

Address

Levine Hall, 3330 Walnut St.
Philadelphia, PA 19104

Contact

antonxue@seas.upenn.edu
antonxue.github.io

Interests Dynamical systems, programming languages, formal methods
Mathematical analysis, linear algebra, combinatorics

Education *Ph.D. Computer and Information Science* 08/2019 – Present
University of Pennsylvania

B.S. Mathematics (Intensive) and Computer Science 08/2015 – 05/2019
Yale University

Work Experience *Research Intern* 06/2019 – 08/2019
Nokia Bell Labs

Research Assistant 09/2015 – 05/2019
Yale University Department of Computer Science

Research Intern 05/2018 – 08/2018
Harvard John A. Paulson School of Engineering and Applied Sciences

Research Intern 05/2017 – 08/2017
Max Planck Institute for Software Systems

Software Engineering Intern 05/2014 – 08/2015
Harvard Medical School

Awards and Honors University of Pennsylvania ENIAC Fellowship 08/2019

Yale Computer Science Award 05/2019

National Science Foundation Graduate Research Fellowship 04/2019

Yale College Freshman Summer Research Fellowship 04/2016

Conference Publications *Data-Driven System Level Synthesis* 12/2020
(in submission, arXiv: <https://arxiv.org/abs/2011.10674>)

A Self-Certifying Compilation Framework for WebAssembly 01/2021
VMCAI 2021

Lazy Counterfactual Symbolic Execution 06/2019
PLDI 2019

Workshop Publications *G2Q: Haskell Constraint Solving* 08/2019
Haskell Symposium 2019

Presentations *Towards a Self-Certifying Compiler for WebAssembly* 12/2019
IBM Programming Language Day 2019

	<i>Towards a Self-Certifying Compiler for WebAssembly</i> FMCAD 2019 Student Forum	10/2019
	<i>Towards the Formalization and Analysis of R</i> FMCAD 2018 Student Forum	11/2018
	<i>Building a Symbolic Execution Engine for Haskell</i> FMCAD 2017 Student Forum	11/2017
	<i>Building a Symbolic Execution Engine for Haskell</i> TAPAS 2017	08/2017
	<i>A Symbolic Execution Framework for Haskell</i> POPL 2017 Student Research Competition	01/2017
Teaching	<i>Teaching Assistant</i> CIS 515 Fundamentals of Linear Algebra and Optimization, Fall/2020 CIS 160 Mathematical Foundations of Computer Science, Summer/2020 University of Pennsylvania	05/2020 – 12/2020
	<i>Teaching Assistant</i> MATH 305 Real Analysis (Course Grader), Spring/2019 CPSC 202 Mathematical Tools for Computer Science, Fall/2016, Fall/2017, Fall/2018 CPSC 366 Intensive Algorithms, Spring/2018 CPSC 365 Design and Analysis of Algorithms, Spring/2017 Yale University	09/2016 – 05/2019
Community	<i>Artifact Evaluation Committee</i> PLDI 2020	03/2020
	<i>Head Student Volunteer</i> CAV 2019	07/2019
	<i>Student Volunteer</i> PLDI 2019	06/2019
	<i>Department Student Advisory Committee</i> Yale University Computer Science Department	08/2017 – 05/2018
	<i>Student Volunteer</i> CAV 2017	07/2017
Software	<i>Self-Certified Optimizer for WebAssembly</i> https://github.com/nokia/web-assembly-self-certifying-compilation-framework	
	<i>G2 Symbolic Execution Engine for Haskell</i> https://github.com/BillHallahan/G2	
	<i>Simple-R Symbolic Execution Engine for R</i> https://github.com/AntonXue/simple-r	
	<i>Multi-Terminal Interval Decision Diagrams</i> https://github.com/dzufferey/mtidd	

Technical*Programming Languages*Haskell, C, Python, Java, R, Scala, C++, SMTLIB, L^AT_EX