## Anton Xue

Address

 $\begin{array}{ccc} 17 \ Broadway \ 2L & \texttt{antonxue.github.io} \\ New \ Haven, \ CT \ 06511 & \texttt{anton.xue@yale.edu} \end{array}$ 

Interests Programming languages, formal methods, automata theory, cyber-physical systems

mathematical analysis, linear algebra, combinatorics

Work Research Assistant Sept 2015 – Present

**Experience** Yale University Department of Computer Science

Research Intern May 2018 – Aug 2018

Harvard University School of Engineering and Applied Sciences

Research Intern May 2017 – Aug 2017

Max Planck Institute for Software Systems

Education B.S. Mathematics and Computer Science Aug 2015 – May 2019

Yale University

Grants Yale College Freshman Summer Research Fellowship 2016

Publications Lazy Counterfactual Symbolic Execution

Programming Language Design and Implementation 2019 (Under Submission)

Presentations Towards the Formalization and Analysis of R Nov 2018

Formal Methods in Computer-Aided Design 2018 Student Forum

Building a Symbolic Execution Engine for Haskell Nov 2017

Formal Methods in Computer-Aided Design 2017 Student Forum

Building a Symbolic Execution Engine for Haskell Aug 2017

Tools for Automatic Program Analysis 2017

A Symbolic Execution Framework for Haskell Jan 2017

Principles of Programming Languages 2017 Student Research Competition

**Teaching** Yale Undergraduate Teaching Assistant

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 2018

Spring 2017

Community Department Student Advisory Committee Fall 2017 – Spring 2018

Yale University Computer Science Department

 $\textbf{Software} \hspace{1cm} \textit{G2 Symbolic Execution Engine for Haskell}$ 

https://github.com/BillHallahan/G2

Simple-R Symbolic Execution Engine for R https://github.com/AntonXue/simple-r

 ${\it Multi-Terminal\ Interval\ Decision\ Diagrams} \\ {\tt https://github.com/dzufferey/mtidd}$ 

 ${\bf Technical} \qquad \qquad Programming \ Languages$ 

Haskell, C, C++, Python, Java, R, Scala, SMTLIB,  $\LaTeX$