

## Anton Xue

### Address

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New Haven, CT 06511

### Contact

[antonxue.github.io](https://antonxue.github.io)  
[anton.xue@yale.edu](mailto:anton.xue@yale.edu)

**Interests**      Programming languages, formal methods  
Mathematical analysis, linear algebra, combinatorics

**Work Experience**      *Research Intern*      06/2019 – Present  
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

**Education**      *B.S. Mathematics and Computer Science*      08/2015 – 05/2019  
Yale University

**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**      *Lazy Counterfactual Symbolic Execution*      06/2019  
PLDI 2019

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

**Presentations**      *Towards the Formalization and Analysis of R*      11/2018  
FMCAD 2018 Student Forum

*Building a Symbolic Execution Engine for Haskell*      11/2017  
FMCAD 2017 Student Forum

*Building a Symbolic Execution Engine for Haskell*      08/2017  
TAPAS 2017

*A Symbolic Execution Framework for Haskell*      01/2017  
POPL 2017 Student Research Competition

|                  |   |                        |
|------------------|---|------------------------|
| <b>Teaching</b>  | <i>Yale Undergraduate Teaching Assistant</i>  | 09/2016 – 05/2019      |
|                  | 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   |                        |
| <b>Community</b> | <i>Head Student Volunteer</i>   | 07/2019                |
|                  | CAV 2019  |                        |
|                  | <i>Student Volunteer</i>  | 06/2019                |
|                  | PLDI 2019   |                        |
|                  | <i>Department Student Advisory Committee</i>  | Fall/2017, Spring/2018 |
|                  | Yale University Computer Science Department   |                        |
| <b>Software</b>  | <i>Student Volunteer</i>  | 07/2017                |
|                  | CAV 2017  |                        |
|                  | <i>G2 Symbolic Execution Engine for Haskell</i>   |                        |
|                  | <a href="https://github.com/BillHallahan/G2">https://github.com/BillHallahan/G2</a>     |                        |
|                  | <i>Simple-R Symbolic Execution Engine for R</i>   |                        |
| <b>Technical</b> | <a href="https://github.com/AntonXue/simple-r">https://github.com/AntonXue/simple-r</a> |                        |
|                  | <i>Multi-Terminal Interval Decision Diagrams</i>  |                        |
|                  | <a href="https://github.com/dzufferey/mtidd">https://github.com/dzufferey/mtidd</a>     |                        |
|                  | <i>Programming Languages</i>  |                        |
|                  | Haskell, C, C++, Python, Java, R, Scala, SMTLIB, $\text{\LaTeX}$                        |                        |