

Osbert Bastani

Education

- 2012-2017 **Ph.D. in Computer Science (expected)**, *Stanford University*, Stanford, CA.
2008-2012 **A.B. in Mathematics**, *Harvard University*, Cambridge, MA.

Publications

- Osbert Bastani, Rahul Sharma, Alex Aiken, and Percy Liang. Synthesizing program input grammars. *PLDI (conditionally accepted)*, 2017.
- Yu Feng, Osbert Bastani, Ruben Martins, Isil Dillig, and Saswat Anand. Automated synthesis of semantic malware signatures using maximum satisfiability. *NDSS*, 2017.
- Osbert Bastani, Yani Ioannou, Lenonidas Lampropoulos, Dimitrios Vytiniotis, Aditya Nori, and Antonio Criminisi. Measuring neural net robustness with constraints. *NIPS*, 2016.
- Lazaro Clapp, Osbert Bastani, Saswat Anand, and Alex Aiken. Minimizing gui event traces. *FSE*, 2016.
- Osbert Bastani, Saswat Anand, and Alex Aiken. An interactive approach to mobile app verification. *MobileDeLi*, 2015.
- Osbert Bastani, Saswat Anand, and Alex Aiken. Interactively verifying absence of explicit information flows in android apps. *OOPSLA*, 2015.
- Osbert Bastani, Saswat Anand, and Alex Aiken. Specification inference using context-free language reachability. *POPL*, 2015.
- Osbert Bastani, Christopher Hillar, Dimitar Popov, and Maurice Rojas. Randomization, sums of squares, near-circuits, and faster real root counting. *Contemporary Mathematics*, 2011.

Working Papers

- Osbert Bastani, Alex Aiken, and Percy Liang. Active learning of points-to specifications. 2016.
- Osbert Bastani, Lazaro Clapp, Saswat Anand, and Alex Aiken. Eventually sound points-to analysis with missing code. 2016.

Honors

- 2015-2017 **Google Ph.D. Fellowship**.
2012-2013 **Stanford School of Engineering Fellowship**.

Industry

- 2015 **Research Intern**, *Microsoft Research*, Cambridge, UK.
Developed new algorithms for finding adversarial examples for deep neural networks.
- 2014 **Research Intern**, *Google*, Mountain View, CA.
Worked on modeling the Android app life cycle and on the Android static analysis infrastructure (implemented SSA, live variables analysis, points-to analysis, reachability analysis, and taint analysis).
- 2013 **Research Intern**, *Technicolor Research Labs*, Palo Alto, CA.
Developed probabilistic extension of generalized binary search for interactively eliciting user preferences.

Teaching

- 2016 **Teaching Assistant**, *Stanford University*, CS 265: Randomized Algorithms and Probabilistic Analysis.
- 2016 **Teaching Assistant**, *Stanford University*, CS 229T: Statistical Learning Theory.
- 2011 **Teaching Assistant**, *Harvard University*, Math 124: Number Theory.