

# Joel Galenson

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CONTACT INFORMATION	Computer Science 582 Soda Hall University of California, Berkeley Berkeley, CA 94720	650-804-6870 <a href="mailto:joel@cs.berkeley.edu">joel@cs.berkeley.edu</a> <a href="http://www.cs.berkeley.edu/~joel/">http://www.cs.berkeley.edu/~joel/</a>
RESEARCH INTERESTS	Program synthesis, static and dynamic analysis, testing, compilers, language design	
EDUCATION	<b>University of California, Berkeley</b> Ph.D. Advisors: Rastislav Bodik and Koushik Sen	2014
	<b>Stanford University</b> B.S. (honors, distinction)	2008
HONORS AND AWARDS	2 <sup>nd</sup> place, LIVE 2013 Best Student Paper Award, ADKDD 08 Winner of 3D video game competition at Stanford Tau Beta Pi (junior year)	2013 2008 2007 2007
PUBLICATIONS	<p>Joel Galenson, Cindy Rubio-González, Sarah Chasins, and Liang Gong. Research.js: Evaluating Research Tool Usability on the Web. In <i>Proceedings of the 5th Workshop on Evaluation and Usability of Programming Languages and Tools (PLATEAU 2014)</i>, Portland, Oregon, USA, 2014.</p> <p>Joel Galenson. Dynamic and Interactive Synthesis of Code Snippets. Ph.D. Dissertation, 2014.</p> <p>Joel Galenson, Philip Reames, Rastislav Bodik, Bjoern Hartmann, and Koushik Sen. CodeHint: Dynamic and Interactive Synthesis of Code Snippets. In <i>International Conference on Software Engineering (ICSE 2014)</i>, Hyderabad, India, 2014.</p> <p>Mihai Budiu, Joel Galenson, and Gordon D. Plotkin. The Compiler Forest. In <i>Proceedings of the 22nd European conference on Programming Languages and Systems (ESOP 2013)</i>, Rome, Italy, 2013.</p> <p>David Gay, Joel Galenson, Mayur Naik, and Kathy Yelick. Yada: Straightforward Parallel Programming. In <i>Parallel Computing</i>, Elsevier, 2011.</p> <p>Rastislav Bodik, Satish Chandra, Joel Galenson, Doug Kimmelman, Nicholas Tung, Shaon Barman, and Casey Rodarmor. Programming with Angelic Nondeterminism. In <i>Proceedings of the 37th Symposium on Principles of Programming Languages (POPL 2010)</i>, Madrid, Spain, 2010.</p> <p>Jason Auerbach, Joel Galenson, and Mukund Sundararajan. An empirical analysis of return on investment maximization in sponsored search auctions. In <i>Proceedings of the Second International Workshop on Data Mining and Audience Intelligence for Advertising (ADKDD 2008)</i>, Las Vegas, Nevada, USA, 2008.</p>	
REFEREED PRESENTATIONS	<p>CodeHint: Dynamic and Interactive Synthesis for Modern IDEs. Future Programming Workshop, SPLASH, 2014.</p> <p>CodeHint: Dynamic and Interactive Synthesis for Modern IDEs. Future Programming Workshop, Strange Loop, 2014.</p>	

Code Hint. First International Workshop on Live Programming, 2013.

## EXPERIENCE

**Senior Engineer**, Qualcomm Research Silicon Valley Fall 2014 - Present  
Researching compilation techniques for programming special purpose accelerator architectures.

**Graduate Student Researcher**, University of California, Berkeley Fall 2008 - Summer 2014  
Am a member of the Parallel Computing Laboratory (Par Lab).

**Teaching Assistant**, University of California, Berkeley Spring 2014  
Was a TA for CS 61B: Data Structures.

**Intern**, Microsoft Research Silicon Valley Summer 2011  
Worked on an architecture for modular cooperating compilers.

**Intern**, Microsoft Research Silicon Valley Summer 2010  
Worked on a new architecture for evaluating LINQ queries that encompasses DryadLINQ.

**Teaching Assistant**, University of California, Berkeley Fall 2009  
Was a TA for CS 164: Programming Languages and Compilers.

**Intern**, IBM T.J. Watson Research Center Summer 2009  
Worked on the constraint-based type system for the X10 language.

**Platform intern**, Mozilla Summer 2008  
Worked on a native code compiler for regular expressions.

**Section Leader for CS 106**, Stanford University Fall 2005 - Summer 2008  
Taught a section covering introductory programming topics, graded homework and exams, staffed a help desk.

**Researcher**, Stanford University Summer 2006 - Spring 2008

- Built a verifying compiler for Zohar Manna and Aaron Bradley.
- Worked on two static analysis tools for Zohar Manna.
- Investigated the properties of online ad auctions and bidder strategies with Tim Roughgarden.
- Developed methods to enable the use of remote computers to speed up data processing by a robot for Andrew Ng.
- Developed techniques for visualizing personal information spaces for Pat Hanrahan.

**Teaching Assistant**, Stanford University Winter 2008  
Was a TA for CS 156: Calculus of Computation.

**Resident Computer Consultant**, Stanford University Fall 2006 - Spring 2008  
Assisted undergraduates with personal computer problems and administered a dorm network.

## PROFESSIONAL ACTIVITIES

Artifact Evaluation Committee: POPL 2015  
External reviewer: PLDI, CAV 2014  
External reviewer: ASPLOS, OOPSLA, VMCAI 2013  
Graduate Admissions Committee, UC Berkeley 2009

## LEADERSHIP

Computer Science Graduate Student Association member  
Graduate Assembly committee representative  
Organized UC Berkeley Programming Languages seminars

Fall 2013 - Spring 2014  
Fall 2013 - Spring 2014  
Fall 2009 - Summer 2014

COMPUTER  
SKILLS

C, C++, Java, Scala, OCaml, C#, Python, JavaScript, L<sup>A</sup>T<sub>E</sub>X, HTML

REFERENCES

*Available on request*