

# Sam Tobin-Hochstadt

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## Areas of Interest

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All areas of Programming Languages and related areas of Software Engineering  
Software Evolution · Types · Modules · Software Contracts · Extensible Languages

## Appointments

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- 2009-2011 Mozilla Postdoctoral Research Fellow, CCIS, Northeastern University
- 2006-2009 Research Assistant, CCIS, Northeastern University
- 2003-2006 Teaching Assistant, CCIS, Northeastern University
- 2004-2006 Intern, Programming Languages Research Group, Sun Microsystems Labs

## Education

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- 2010 PH.D in Computer Science, Northeastern University  
Thesis title: *Typed Scheme: From Scripts to Programs*  
Advisor: Matthias Felleisen  
Committee: Guy L. Steele Jr., Mitchell Wand, Olin Shivers  
Nominated for the ACM SIGPLAN Distinguished Dissertation Award
- 2006 MA in Computer Science, Northeastern University
- 2003 BS in Computer Science with Honors, University of Chicago

## Publications

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### Journal Articles

- 2011 The Design and Implementation of Typed Scheme, with Matthias Felleisen, *Higher Order and Symbolic Computation (HOSC)*, accepted for publication.

### Selective Conferences

- 2011 Languages as Libraries, with Vincent St-Amour, Ryan Culpepper, Matthew Flatt and Matthias Felleisen, *Proc. 32nd ACM Conference on Programming Language Design and Implementation (PLDI)*, to appear.

- 2010 Logical Types for Untyped Languages, with Matthias Felleisen, *Proc. 15th ACM International Conference on Functional Programming (ICFP)*.
- 2009 Practical Variable-Arity Polymorphism, with Matthias Felleisen and T. Stephen Strickland, *Proc. Eighteenth European Symposium on Programming (ESOP)*.
- 2008 The Design and Implementation of Typed Scheme, with Matthias Felleisen, *Proc. 35th ACM Symposium on Principles of Programming Languages (POPL)*.
- 2006 Interlanguage Migration: From Scripts to Programs, with Matthias Felleisen, *Dynamic Languages Symposium at OOPSLA (DLS)*.

## Workshops

- 2010 Extensible Pattern Matching for Extensible Languages (Abstract), *2010 Symposium on Implementation and Application of Functional Languages (IFL)*.
- 2010 Where are you going with those types? (Abstract), with Vincent St-Amour, Matthias Felleisen and Matthew Flatt, *2010 Symposium on Implementation and Application of Functional Languages (IFL)*.
- 2010 Purely Functional Data Structures for Typed Racket, with Hari Prashanth K R, *2010 Workshop on Scheme and Functional Programming*.
- 2009 Cycles without pollution: a gradual typing poem, with Robert Bruce Findler, *First Workshop on Script to Program Evolution (STOP)*.
- 2007 Advanced Macrology and the Implementation of Typed Scheme, with Ryan Culpepper and Matthew Flatt, *2007 Workshop on Scheme and Functional Programming*.
- 2005 A Core Calculus of Metaclasses, with Eric Allen, *Twelfth Workshop on Foundations of Object-Oriented Languages (FOOL)*.

## Miscellaneous Publications

- 2004-2008 Fortress Language Specification, with Eric Allen, David Chase, Joe Hallet, Victor Luchangco, Jan-Willem Maessen, Sukyoung Ryu, and Guy L. Steele Jr., versions 0.618-1.0, Sun Microsystems Technical Report.

## Patents

- 2006 Method and apparatus for expressing and checking relationships between types, with Sukyoung Ryu, Eric Allen, Victor Luchangco, and Joe Hallet, Pending. 2007/0256060.

## Grants & Awards

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- 2009-2011 2-year Mozilla Research Fellowship, Mozilla Corporation, \$200,000
- 2010 CCIS Outstanding Research Award

## Teaching

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- 2011 Instructor, Fundamentals of Computer Science 2 (Honors)
- 2009 Instructor, Fundamentals of Computer Science 1
- 2005 Instructor, Fundamentals of Computer Science 2
- 2003-2008 Teaching Assistant, Fundamentals of Computer Science 1 (2003, 2004), Fundamentals of Computer Science 2 (2004), Software Development (2005), Programming Languages (2006, 2008)

## Advisees

- 2009-2010 Hari Prashanth K R, MS Thesis
- 2007 Ivan Gazeau, Ph.D visitor from École normale supérieure (Paris)

## Talks

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- 2010 From Scripts to Programs. At the Indiana University Department of Computer Science
- 2010 Logical Types for Scheme. At the New England Programming Languages and Systems Symposium
- 2010 Typed Scheme: From Scripts to Programs. At the Harvard University Programming Languages Seminar
- 2009 Types for Scheme, in Scheme. At the Boston Lisp Meeting
- 2009 Typed Scheme: From Scripts to Programs. At Sun Microsystems Laboratories
- 2009 The Design and Implementation of Typed Scheme. At the Symposium in Honor of Mitchell Wand
- 2008 To Type or Not to Type. At the Northeastern University ACM Lecture Series

## Professional Activities

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- 2012 Workshop on Script to Program Evolution, Program Chair
- 2010-2011 TC39 - ECMAScript (Standards Committee for JavaScript), Member
- 2011 Workshop on Scheme and Functional Programming, Program Committee
- 2011 New England Programming Languages and Systems Symposium, Chair
- 2011 Workshop on Script to Program Evolution, Program Committee
- 2011 Workshop on Types in Language Design and Implementation, Program Committee
- 2010 Workshop on Foundations of Object-Oriented Languages, Program Committee
- 2010 Symposium on Trends in Functional Programming, Program Committee

External Reviewer: J. of Functional Programming, OOPSLA 2009, ICFP 2008

## Professional Associations

Association for Computing Machinery, SIGPLAN

## References

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