JUSTIN POMBRIO

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Education

Brown University, Providence, RI
PhD in Computer Science (Programming Languages) *May 2018*
Masters in Computer Science *May 2014*

Worcester Polytechnic Institute, Worcester, MA *May 2011*
Bachelor of Science in Computer Science
Bachelor of Science in Mathematical Science

Publications

Resugaring: Lifting Languages through Syntactic Sugar (thesis)
Justin Pombrio. *Brown 2018.*

The Behavior of Gradual Types: A User Study
Preston Tunnell Wilson, Ben Greenman, Justin Pombrio, Shriram Krishnamurthi. *DLS 2018.*

*Inferring Type Rules for Syntactic Sugar
Justin Pombrio, Shriram Krishnamurthi. *PLDI 2018.*

Can We Crowdsource Language Design?
Preston Tunnell Wilson, Justin Pombrio, Shriram Krishnamurthi. *Onward! 2017.*

Teaching Programming Languages by Experimental and Adversarial Thinking
Justin Pombrio, Shriram Krishnamurthi, Kathi Fisler. *SNAPL 2017.*

Inferring Scope through Syntactic Sugar
Justin Pombrio, Shriram Krishnamurthi, Mitchell Wand. *ICFP 2017.*

Slimming Languages by Reducing Sugar: A Case for Semantics-Altering Transformations:
Junsong Li, Justin Pombrio, Joe Gibbs Politz, Shriram Krishnamurthi. *Onward! 2015.*

Hygienic Resugaring of Compositional Desugaring
Justin Pombrio, Shriram Krishnamurthi. *ICFP 2015.*

Resugaring: Lifting Evaluation Sequences through Syntactic Sugar
Justin Pombrio, Shriram Krishnamurthi. *PLDI 2014.*

A Tested Semantics forGetters, Setters, and Eval in JavaScript
Joe Gibbs Politz, Matt Carroll, Benjamin S. Lerner, Justin Pombrio, Shriram Krishnamurthi. *DLS 2012.*

**Distinguished Artifact Award*

Experience

CodeMirror-Blocks *Dec 2018-present*
CodeMirror-Blocks is an educational block editor. It sets itself apart from other block editors by (i) being accessible to the visually impaired, (ii) offering both a block view and a text view of the code, and (iii) being (as much as possible) a drop-in replacement for the CodeMirror text editor.

Graduate TA for PL Course, Brown *Fall 2013, 2014, 2015, 2016*
I constructed the programming assignments for the course and automated their grading. These assignments were the majority of the students' coursework; there were no exams. We graded both code and test cases. Automatically grading test cases is an interesting challenge: ask me about it. I also developed a teaching approach for programming languages called Mystery Languages, and won a Presidential Award for Excellence in Teaching from Brown in 2018.

Kayak, Concord, MA *June 2011 – June 2012*
Kayak is a travel search engine. My most significant contribution was to redesign the ad management framework used by Kayak's account managers.

Major Qualifying Project, WPI *March 2010 – May 2011*
My research project involved verifying cryptographic protocols using geometric logic. (Unpublished.)

Chitika, Marlborough, MA *May – Aug 2008*
Chitika is an internet advertising company. Among other things, I automated their click-fraud detection.

Conference Talks: PLDI'14, ICFP'15, Onward'15, NEPLS'15, ICFP'17, PLDI'18

Artifact Evaluation Committee Reviewer: PLDI'16

Co-Organizer of Racket Summer School 2017

See github.com/justinpombrio