Ben Greenman

Brown University CIT building 115 Waterman St

Providence RI 02912

benjamin.1.greenman@gmail.com 781-924-9989

RESEARCH INTERESTS _

General interests: Language design issues regarding proofs, performance, and people. What guarantees can a language offer, how efficiently can it run, and to what extent does it help users meet their goals?

Specific interests: Migratory Typing, Language Interoperability, Type Theory, Formal Methods	
Education	
Northeastern University	2014 - 2020
Degree Ph.D	
Area Programming Languages	
Advisor Matthias Felleisen	
Thesis Deep and Shallow Types	
Cornell University	2013 - 2014
Degree Master of Engineering	
Major Computer Science	
Advisor Ross Tate	
Cornell University	2010 - 2013
Degree Bachelor of Science	
Major Industrial and Labor Relations	
Minor Computer Science	
Hudson Valley Community College	2009 - 2010
General Studies	
Employment	
Brown University	2021 – ongoing
Postdoctoral Researcher, CIFellows 2020	2021 - Ongoing
Knightsbridge Park	2017
Consultant, Web Scraping	
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2012 - 2014

• Cornell University

Research Assistant

TEACHING _____ • Topics in PL and Systems: Tables and Humans 2020 Organizer • Software Development 2018, 2020 **Teaching Assistant** • Fundamentals I (Computing and Programming) 2016 Teaching Assistant • Object-Oriented Design 2016 **Teaching Assistant** • Functional Programming and Data Structures 2012 - 2014**Teaching Assistant** STUDENTS SUPERVISED _ • Siddhartha Prasad 2022 - ongoing Ph.D., Brown University • Qianfan Chen 2021 - 2022Sc.B. with Honors, Brown University • Kuang-Chen Lu 2021 - ongoing Ph.D., Brown University • Milo Davis 2017 B.S., Northeastern University • Zeina Migeed 2016 - 2017B.S., Northeastern University Awards _____ • CRA/CCC/NSF CI Fellowship 2021 - ongoing • SIGPLAN Student Scholarship to: 50 Years of the ACM A.M. Turing Award 2017 • Northeastern CCIS Graduate Community Service Award 2016 • Cornell CS Teaching Award 2014 • Cornell CS Teaching Award 2013

2012 - 2014

• Rentenna Inc.

Software Engineering Intern

Professional Service • Program Committee **DLS 2022** • Artifact Evaluation Committee Co-Chair OOPSLA 2022 • Program Committee ICFP 2021 • Program Committee **PLDI 2021** Artifact Evaluation Committee **ECOOP 2017** • Artifact Evaluation Committee OOPSLA 2017 • Artifact Evaluation Committee OOPSLA 2016 PUBLICATIONS **Iournal** • Ben Greenman, Asumu Takikawa, Max S. New, Daniel Feltey, Robert Bruce Findler, JFP 2019 Jan Vitek, and Matthias Felleisen. How to Evaluate the Performance of Gradual Type Systems Conference, Symposium, and Hybrid Conference / Journal • Ben Greenman **PLDI 2022** Deep and Shallow Types for Gradual Languages • Ben Greenman, Lukas Lazarek, Christos Dimoulas, and Matthias Felleisen Programming 2022 A Transient Semantics for Typed Racket

Kuang-Chen Lu, Ben Greenman, and Shriram Krishnamurthi
 Types for Tables: A Language Design Benchmark

• Lukas Lazarek, Ben Greenman, Matthias Felleisen, and Christos Dimoulas

ICFP 2021

How to Evaluate Blame for Gradual Types

• Ben Greenman, Matthias Felleisen, and Christos Dimoulas

Complete Monitors for Gradual Types

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

 Daniel Feltey, Ben Greenman, Christophe Scholliers, Robert Bruce Findler, and Vincent St. Amour.
 Collapsible Contracts: Fixing a Pathology of Gradual Typing

• Ben Greenman, Matthias Felleisen. ICFP 2018

A Spectrum of Type Soundness and Performance

Ben Greenman, Zeina Migeed. On the Cost of Type-Tag Soundness	PEPM 2018
• Sam Tobin-Hochstadt, Matthias Felleisen, Robert Bruce Findler, Matthew Flatt, Ben Greenman, Andrew M. Kent, Vincent St-Amour, T. Stephen Strickland, and Asumu Takikawa. Migratory Typing: 10 Years Later	SNAPL 2017
• Stephen Chang, Ben Greenman, and Alex Knauth. <i>Type Systems as Macros</i>	POPL 2017
 Asumu Takikawa, Daniel Feltey, Ben Greenman, Max S. New, Jan Vitek, and Matthias Felleisen. Is Sound Gradual Typing Dead? 	POPL 2016
• Ben Greenman, Fabian Muehlboeck, and Ross Tate. Getting F-Bounded Polymorphism into Shape	PLDI 2014
Workshop	
 Asumu Takikawa, Daniel Feltey, Ben Greenman, Max S. New, Jan Vitek, and Matthias Felleisen. Position Paper: Performance Evaluation for Gradual Typing 	STOP 2015
Invited Talks	
Racket Con Shallow Typed Racket	2020
Boston University POPV Seminar Complete Monitoring for Gradual Types	2020
GRACE Workshop Three Approaches to Gradual Typing	2018
Volunteering	
Bootstrap Professional Development Teaching Assistant	Summer 2021
Housing Chair	SPLASH 2018
Northeastern CCIS Hiring Committee Student Representative	Spring 2018
• PRL Offsite Organizer	Fall 2019
Each One Teach One AP Java Tutor	Fall 2015

• Student Volunteer

OOPSLA 2019; Turing Celebration 2017; POPL 2016, 2018; PLDI 2016; ICFP 2015, 2018; ECOOP 2015, 2016

• Ithaca Media Arts Teacher, LEGO Mindstorms Camp Summer 2012

• Cornell Math Explorers Module Designer Winter 2011