## Ben Greenman

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## 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, Typ	e Theory, Formal Methods
Education	
<ul> <li>Northeastern University         <ul> <li>Degree Ph.D</li> <li>Area Programming Languages</li> <li>Advisor Matthias Felleisen</li> <li>Thesis Deep and Shallow Types</li> </ul> </li> </ul>	2014 - 2020
<ul> <li>Cornell University         Degree Master of Engineering         Major Computer Science         Advisor Ross Tate     </li> </ul>	2013 - 2014
<ul> <li>Cornell University         Degree Bachelor of Science         Major Industrial and Labor Relations         Minor Computer Science     </li> </ul>	2010 - 2013
• Hudson Valley Community College General Studies	2009 - 2010
Employment	
University of Utah     Assistant Professor	2023 – ongoing
• Brown University Postdoctoral Researcher, CIFellows 2020	2021 - 2023
Knightsbridge Park	2017

Consultant, Web Scraping

• Cornell University Research Assistant	2012 - 2014
• Rentenna Inc. Software Engineering Intern	2012 - 2014
TEACHING	
Topics in PL and Systems: Tables and Humans     Organizer	2020
Software Development     Teaching Assistant	2018, 2020
• Fundamentals I (Computing and Programming) Teaching Assistant	2016
Object-Oriented Design     Teaching Assistant	2016
Functional Programming and Data Structures     Teaching Assistant	2012 - 2014
Students Supervised	
• Siddhartha Prasad Ph.D., Brown University	2022 – ongoing
• Qianfan Chen Sc.B. with Honors [thesis], Brown University	2021 - 2022
• Kuang-Chen Lu Ph.D., Brown University	2021 - 2022
• Milo Davis B.S., Northeastern University	2017
• Zeina Migeed B.S., Northeastern University	2016 – 2017
Awards	
NSF SHF: Small: Little Tricky Logics role: postdoc	2023 - 2025
CRA/CCC/NSF CI Fellowship	2021 - 2023
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
Professional Service	
• Co-Chair of Artifact Evaluation Committee	OOPSLA 2023
Program Committee	HATRA 2022
Program Committee	DLS 2022
Co-Chair of Artifact Evaluation Committee	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

## Journal

Publications \_\_\_

• 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, Sam Saarinen, Tim Nelson, and Shriram Krishnamurthi Programming 7.2, 2023 Little Tricky Logic: Misconceptions in the Understanding of LTL
- Kuang-Chen Lu, Ben Greenman, Carl Meyer, Dino Viehland,
   Aniket Panse, and Shriram Krishnamurthi
   Gradual Soundness: Lessons from Static Python
- Siddhartha Prasad, Ben Greenman, John Wrenn, Tim Nelson, and Shriram Krishnamurthi Making Hay from Wheats: A Classsourcing Method to Identify Misconceptions
- Ben Greenman

  PLDI 2022

  Deep and Shallow Types for Gradual Languages

• Ben Greenman, Lukas Lazarek, Christos Dimoulas, and Matthias Felleisen A Transient Semantics for Typed Racket	Programming 7.2, 2022
• Kuang-Chen Lu, Ben Greenman, and Shriram Krishnamurthi Types for Tables: A Language Design Benchmark	Programming 7.2, 2022
• Lukas Lazarek, Ben Greenman, Matthias Felleisen, and Christos Dimoulas How to Evaluate Blame for Gradual Types	ICFP 2021
• Ben Greenman, Matthias Felleisen, and Christos Dimoulas Complete Monitors for Gradual Types	OOPSLA 2019
• Preston Tunnell Wilson, Ben Greenman, Justin Pombrio, Shriram Krishnan <i>The Behavior of Gradual Types: A User Study</i>	nurthi. DLS 2018
• Daniel Feltey, Ben Greenman, Christophe Scholliers, Robert Bruce Findler, and Vincent St. Amour.  Collapsible Contracts: Fixing a Pathology of Gradual Typing	OOPSLA 2018
• Ben Greenman, Matthias Felleisen.  A Spectrum of Type Soundness and Performance	ICFP 2018
Ben Greenman, Zeina Migeed.     On the Cost of Type-Tag Soundness	PEPM 2018
<ul> <li>Sam Tobin-Hochstadt, Matthias Felleisen, Robert Bruce Findler, Matthew F Ben Greenman, Andrew M. Kent, Vincent St-Amour, T. Stephen Strickland and Asumu Takikawa.</li> <li>Migratory Typing: 10 Years Later</li> </ul>	
• Stephen Chang, Ben Greenman, and Alex Knauth.  Type Systems as Macros	POPL 2017
<ul> <li>Asumu Takikawa, Daniel Feltey, Ben Greenman, Max S. New, Jan Vitek, and Matthias Felleisen.</li> <li>Is Sound Gradual Typing Dead?</li> </ul>	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	

 ${\it Little\ Tricky\ Logic:\ Misconceptions\ in\ the\ Understanding\ of\ LTL}$ 

2022

• VardiFest

• 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
<ul> <li>Cornell Math Explorers Module Designer</li> </ul>	Winter 2011