Ben Greenman

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RESEARCH INTERESTS

General interests: Language design issues regarding proofs, performance, and people. What guarantees do languages offer, how efficiently can they run, and to what extent do they 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

- University of Utah   2023 − ongoing
  Assistant Professor

- Brown University   2021 − 2023
  Postdoctoral Researcher, CIFellows 2020
  Mentor Shriram Krishnamurthi

- Knightsbridge Park   2017
  Consultant, Web Scraping

- Cornell University   2012 – 2014
  Research Assistant

- Rentenna Inc.   2012 – 2014
  Software Engineering Intern

TEACHING

- Topics in PL and Systems: Tables and Humans   2021
  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

- Ashton Wiersdorf   2022 – ongoing
  Ph.D., University of Utah

- Taylor Allred   2022 – ongoing
  M.S., University of Utah

- Siddhartha Prasad   2022 – ongoing
  Ph.D., Brown University

- Qianfan Chen   2021 – 2022
  Sc.B. with Honors [thesis], Brown University

- Kuang-Chen Lu   2021 – 2022
  Ph.D., Brown University

- Milo Davis   2017
  B.S., Northeastern University

- Zeina Migeed   2016 – 2017
  B.S., Northeastern University

Awards

- NSF SHF: Small: Little Tricky Logics   2023 – 2025
  Postdoc

- 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 & ERC   OOPSLA 2022, OOPSLA 2023

- Program Committee   TFP 2023
  HATRA 2023, 2022
  DLS 2022
  ICFP 2021
  PLDI 2021

- External Review Committee   ESOP 2023, ICFP 2023

- Artifact Evaluation Committee   ECOOP 2017, OOPSLA 2017, OOPSLA 2016

Publications

Journal

- Ben Greenman, Christos Dimoulas, and Matthias Felleisen.   TOPLAS 2023
  Typed–Untyped Interactions: A Comparative Analysis

- 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,   Programming 7.1, 2023
  Aniket Panse, and Shriram Krishnamurthi
  Gradual Soundness: Lessons from Static Python

- Siddhartha Prasad, Ben Greenman, Tim Nelson, John Wrenn, and Shriram Krishnamurthi
Making Hay from Wheats: A Classsourcing Method to Identify Misconceptions

Koli Calling, 2022

- Ben Greenman
Deep and Shallow Types for Gradual Languages

PLDI 2022

- 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 Krishnamurthi.
The Behavior of Gradual Types: A User Study

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

- 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.
Type Systems as Macros

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

- TLf@AAAI-SSS'23   2023
  Towards LTLf Misconceptions

- VardiFest, NJPLS   2022
  Little Tricky Logic: Misconceptions in the Understanding of LTL

- Racket Con   2020, 2022
  Shallow Typed Racket
  Shallow and Optional Types for Typed Racket

- Boston University POPV Seminar   2020
  Complete Monitoring for Gradual Types

- GRACE Workshop   2018
  Three Approaches to Gradual Typing

Volunteering

- Bootstrap Professional Development   Summer 2021
  Teaching Assistant

- Housing Chair   SPLASH 2018

- Northeastern CCIS Hiring Committee   Spring 2018
  Student Representative

- PRL Offsite   Fall 2019
  Organizer

- Each One Teach One   Fall 2015
  AP Java Tutor

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

- Ithaca Media Arts   Summer 2012
  Teacher, LEGO Mindstorms Camp

- Cornell Math Explorers   Winter 2011
  Module Designer