Benjamin Lee 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, 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

- 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 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 2020 − ongoing
  Sc.B., Brown University

- Kuang-Chen Lu 2020 − ongoing
  Ph.D., Brown University

- Milo Davis 2017
  B.S., Northeastern University

- Zeina Migeed 2016 − 2017
  B.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

- 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

Journal

- 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
  San Diego, CA.

- 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 Programming 2022
  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 OOPSLA 2019
  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, OOPSLA 2018
  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. PEPM 2018
  On the Cost of Type-Tag Soundness

- 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

- Racket Con — 2020
Shallow 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