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, 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
- 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
  role: 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

- External Review Committee — ESOP 2023
- Co-Chair of Artifact Evaluation Committee & ERC — OOPSLA 2023
- Program Committee — TFP 2023
- Program Committee — HATRA 2022
- Program Committee — DLS 2022
- Co-Chair of Artifact Evaluation Committee & ERC — 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, 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, Jan Vitek, and Matthias Felleisen. — JFP 2019
  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 — Programming 7.1, 2023
  Gradual Soundness: Lessons from Static Python
- Siddhartha Prasad, Ben Greenman, Tim Nelson, John Wrenn, and Shriram Krishnamurthi — Koli Calling, 2022
  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 — Programming 7.2, 2022
  A Transient Semantics for Typed Racket
- Kuang-Chen Lu, Ben Greenman, and Shriram Krishnamurthi — Programming 7.2, 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, and Vincent St. Amour. — OOPSLA 2018
  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. — SNAPL 2017
  Migratory Typing: 10 Years Later
- Stephen Chang, Ben Greenman, and Alex Knauth. — POPL 2017
  Type Systems as Macros
- Asumu Takikawa, Daniel Feltey, Ben Greenman, Max S. New, Jan Vitek, and Matthias Felleisen. — POPL 2016
  Is Sound Gradual Typing Dead?
- Ben Greenman, Fabian Muehlboeck, and Ross Tate. — PLDI 2014
  Getting F-Bounded Polymorphism into Shape

Workshop

- Asumu Takikawa, Daniel Feltey, Ben Greenman, Max S. New, Jan Vitek, and Matthias Felleisen. STOP 2015
  Position Paper: Performance Evaluation for Gradual Typing

Invited Talks

- 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