Benjamin Lee Greenman

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Research Interests

Migratory Typing, Language Design, Type Theory, Constructions

Education

- Hudson Valley Community College   2009 – 2010
  General Studies

- Cornell University   2010 – 2013
  - *Degree*   Bachelor of Science
  - *Major*   Industrial and Labor Relations
  - *Minor*   Computer Science

- Cornell University   2013 – 2014
  - *Degree*   Master of Engineering
  - *Major*   Computer Science
  - *Advisor* Ross Tate

- Northeastern University   2014 – 2020
  - *Degree*   Ph.D
  - *Area*   Programming Languages
  - *Advisor* Matthias Felleisen
  - *Thesis*   Deep and Shallow Types

Employment

- Rentenna Inc.   2012 – 2014
  Software Engineering Intern

- Cornell University   2012 – 2014
  Research Assistant

- Knightsbridge Park   2017
  Consultant, Web Scraping

- Brown University   2021 – ongoing
  Postdoctoral Researcher, CIFellows 2020

Teaching

- TA, Functional Programming and Data Structures   2012 – 2014

- TA, Object-Oriented Design   2016
- TA, Fundamentals I (Computing and Programming)   2016
- TA, Software Development   2018, 2020
- Organizer, Topics in PL and Systems: Tables and Humans   2020

Students Supervised

- Zeina Migeed   2016 – 2017
  B.S., Northeastern University
- Milo Davis   2017
  B.S., Northeastern University
- Kuang-Chen Lu   2020 – ongoing
  Ph.D., Brown University
- Quianfan Chen   2020 – ongoing
  B.S., Brown University

Awards

- Cornell Computer Science Teaching Award   2013
- Cornell Computer Science Teaching Award   2014
- Northeastern CCIS Graduate Community Service Award   2016
- CRA/CCC/NSF CI Fellowship   2021 – ongoing

Service

- CCIS Social Hour Czar   Fall 2014 – Spring 2017
- Student Volunteer   ECOOP 2015
- Student Volunteer   ICFP 2015
- PRL Webmaster   Fall 2016 – Fall 2018
- GTP Webmaster   Spring 2016 – Spring 2019
- Student Volunteer   POPL 2016
- Student Volunteer   PLDI 2016
- Student Volunteer   ECOOP 2016
- Artifact Evaluation Committee   OOPSLA 2016
- Student Volunteer   Turing Celebration 2017
- Artifact Evaluation Committee   ECOOP 2017
- Artifact Evaluation Committee   OOPSLA 2017

- Student Volunteer POPL 2018
- CCIS Hiring Committee student representative Spring 2018
- Student Volunteer (Slack Monitor) ICFP 2018
- Housing Chair SPLASH 2018
- PRL Coffee Czar Fall 2019 – Spring 2020
- Student Volunteer SPLASH 2019
- PRL Offsite Organizer with Olek Gierczak and Amal Ahmed Fall 2019
- Reviewer JFP Special Issue on Gradual Typing
- Program Committee PLDI 2021
- Program Committee ICFP 2021

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
Cambridge, United Kingdom.

- Ben Greenman, Lukas Lazarek, Christos Dimoulas, and Matthias Felleisen Programming 2022
A Transient Semantics for Typed Racket
Porto, Portugal.

- Kuang-Chen Lu, Ben Greenman, and Shriram Krishnamurthi Programming 2022
Types for Tables: A Language Design Benchmark
Porto, Portugal.

Conference and Symposium

- Ben Greenman, Fabian Muehlboeck, and Ross Tate. PLDI 2014
Getting F-Bounded Polymorphism into Shape.
Edinburgh, Scotland.

- Asumu Takikawa, Daniel Feltey, Ben Greenman, Max S. New, Jan Vitek, POPL 2016
and Matthias Felleisen.
Is Sound Gradual Typing Dead?
St. Petersburg, Florida.

- Stephen Chang, Ben Greenman, and Alex Knauth. POPL 2017
Type Systems as Macros
Paris, France.

- Sam Tobin-Hochstadt, Matthias Felleisen, Robert Bruce Findler, Matthew Flatt, SNAPL 2017
Ben Greenman, Andrew M. Kent, Vincent St-Amour, T. Stephen Strickland,
and Asumu Takikawa.
Migratory Typing: 10 Years Later
Monterey, California.

- Ben Greenman, Zeina Migeed. PEPM 2018
  On the Cost of Type-Tag Soundness
  Los Angeles, California.

- Ben Greenman, Matthias Felleisen. ICFP 2018
  A Spectrum of Type Soundness and Performance
  St. Louis, Missouri.

- Daniel Feltey, Ben Greenman, Christophe Scholliers, Robert Bruce Findler, OOPSLA 2018
  and Vincent St. Amour.
  Collapsible Contracts: Fixing a Pathology of Gradual Typing
  Boston, Massachusetts.

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

- Ben Greenman, Matthias Felleisen, and Christos Dimoulas OOPSLA 2019
  Complete Monitors for Gradual Types
  Athens, Greece.

- Lukas Lazarek, Ben Greenman, Matthias Felleisen, and Christos Dimoulas ICFP 2021
  How to Evaluate Blame for Gradual Types
  Virtual / Airmeet.

Workshop

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

Invited Talks

- GRACE Workshop 2018
  Three Approaches to Gradual Typing.

- BU POPV Seminar 2020
  Complete Monitoring for Gradual Types.

- Racket Con 2020
  Shallow Typed Racket.

Achievements

- 35 video game world records [link] 2007 – 2008
- 3rd place Pennsylvania State Birling Championship 2013, 2014
- 2nd place Pennsylvania State Birling Championship 2016, 2017
- 1st place Pennsylvania State Birling Championship 2018, 2019
- 2nd place Barkpeelers Greased Pole Competition 2015, 2018
- Barkpeelers Grand Champion (tied with Ben Barner) [link] 2018