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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
Consultant, Web Scraping 2017
- Cornell University
Research Assistant 2012 – 2014
- Rentenna Inc.
Software Engineering Intern 2012 – 2014

TEACHING

- Topics in PL and Systems: Tables and Humans
Organizer 2021
- 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

- Rob Durst
—, not a student 2023 – ongoing
- Caspar Popova
—, not a student 2023 – ongoing
- Vivaan Rajesh
—, Hillcrest High School 2023 – ongoing
- Dibri Nsofor
Ph.D., University of Utah 2023 – ongoing
- Ashton Wiersdorf
Ph.D., University of Utah 2022 – ongoing
- Taylor Allred
M.S., University of Utah 2022 – 2023
- Siddhartha Prasad
Ph.D., Brown University 2022 – ongoing
- Qianfan Chen
Sc.B. with Honors [thesis], Brown University 2021 – 2022

- 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, 2023
- Program Committee TFP 2023
HATRA 2022, 2023
DLS 2022
ICFP 2021
PLDI 2021
- External Review Committee ESOP 2023, ICFP 2023
- Artifact Evaluation Committee ECOOP 2017, OOPSLA 2016, 2017

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

- Siddhartha Prasad, Ben Greenman, Tim Nelson, and Shriram Krishnamurthi *Programming 8.2, 2024*
Conceptual Mutation Testing for Student Programming Misconceptions
- Siddhartha Prasad, Ben Greenman, Tim Nelson, and Shriram Krishnamurthi *CompEd, 2023*
Generating Programs Trivially: Student Use of Large Language Models
- Ben Greenman, Matthias Felleisen, and Christos Dimoulas *OOPSLA 2023*
How Profilers Can Help Navigate Type Migration
- Matthew Flatt, Taylor Allred, Nia Angle, Stephen De Gabrielle, Robert Bruce Finder, *OOPSLA 2023*
Jack Firth, Kiran Gopinathan, Ben Greenman, Siddhartha Kasivajhula, Alex Knauth, Jay McCarthy,
Sam Phillips, Sorawee Porncharoenwase, Jens Axel Søgaard, and Sam Tobin-Hochstadt
Rhombus: A New Spin on Macros Without All The Parentheses
- Lukas Lazarek, Ben Greenman, Matthias Felleisen, and Christos Dimoulas *ICFP 2023*
How to Evaluate Blame for Gradual Types, Part 2
- Ben Greenman *ACM REP 2023*
GTP Benchmarks for Gradual Typing Performance
- 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, *Koli Calling, 2022*
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 *Programming 6.2, 2022*
A Transient Semantics for Typed Racket
- Kuang-Chen Lu, Ben Greenman, and Shriram Krishnamurthi *Programming 6.1, 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. *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

- Taylor Allred, Xinyi Li, Ashton Wiersdorf, Ben Greenman, and Ganesh Gopalakrishnan. *FlowFPX: Nimble Tools for Debugging Floating-Point Exceptions* JuliaCon 2023
- 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 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** 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 Teacher, LEGO Mindstorms Camp Summer 2012
- Cornell Math Explorers Module Designer Winter 2011