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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 _____

- **Programming Languages**
Co-Instructor 2023
- **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 _____

- Suyasha Bobhate
M.S, University of Utah 2023 – ongoing
- Rob Durst
—, not a student 2023 – 2023
- Caspar Popova
—, not a student 2023 – ongoing
- Vivaan Rajesh
—, Hillcrest High School 2023 – ongoing
- Aniket Karna
M.S., University of Utah 2023 – 2023
- 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
Ph.D., Brown University 2021 – 2022
- Milo Davis
B.S., Northeastern University 2017
- Zeina Migeed
B.S., Northeastern University 2016 – 2017

AWARDS

- [NSF SHF: Small: Little Tricky Logics](#)
Postdoc 2023 – 2025
- [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](#)

MEMBERSHIPS

- IEEE 2023 – ongoing
- IEEE Computer Society 2023 – ongoing
- ACM 2023 – ongoing
- ACM SIGPLAN 2016 – ongoing

PUBLICATIONS

Journal

- Ben Greenman, Christos Dimoulas, and Matthias Felleisen. *Typed–Untyped Interactions: A Comparative Analysis* **TOPLAS 2023**
- Ben Greenman, Asumu Takikawa, Max S. New, Daniel Feltey, Robert Bruce Findler, Jan Vitek, and Matthias Felleisen. *How to Evaluate the Performance of Gradual Type Systems* **JFP 2019**

Conference, Symposium, and Hybrid Conference / Journal

- Siddhartha Prasad, Ben Greenman, Tim Nelson, and Shriram Krishnamurthi *Conceptual Mutation Testing for Student Programming Misconceptions* **Programming 8.2, 2024**
- Siddhartha Prasad, Ben Greenman, Tim Nelson, and Shriram Krishnamurthi *Generating Programs Trivially: Student Use of Large Language Models* **CompEd, 2023**
- Ben Greenman, Matthias Felleisen, and Christos Dimoulas *How Profilers Can Help Navigate Type Migration* **OOPSLA 2023**
- Matthew Flatt, Taylor Allred, Nia Angle, Stephen De Gabrielle, Robert Bruce Findler, Jack Firth, Kiran Gopinathan, Ben Greenman, Siddhartha Kasivajhula, Alex Knauth, Jay McCarthy, Sam Phillips, Sorawee Porncharoenwase, Jens Axel Sogaard, and Sam Tobin-Hochstadt *Rhombus: A New Spin on Macros Without All The Parentheses* **OOPSLA 2023**
- Lukas Lazarek, Ben Greenman, Matthias Felleisen, and Christos Dimoulas *How to Evaluate Blame for Gradual Types, Part 2* **ICFP 2023**
- Ben Greenman *GTP Benchmarks for Gradual Typing Performance* **ACM REP 2023**
- Ben Greenman, Sam Saarinen, Tim Nelson, and Shriram Krishnamurthi *Little Tricky Logic: Misconceptions in the Understanding of LTL* **Programming 7.2, 2023**
- Kuang-Chen Lu, Ben Greenman, Carl Meyer, Dino Viehland, Aniket Panse, and Shriram Krishnamurthi *Gradual Soundness: Lessons from Static Python* **Programming 7.1, 2023**

- 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 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, 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

- Taylor Allred, Xinyi Li, Ashton Wiersdorf, Ben Greenman, and Ganesh Gopalakrishnan JuliaCon 2023
FlowFPX: Nimble Tools for Debugging Floating-Point Exceptions

- 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

- [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