Daniel Patterson

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SUMMARY   PhD candidate (programming languages).

ACADEMIC PUBLICATIONS

Foreign Function Typing: Semantic Type Soundness for FFIs.
- Daniel Patterson and Amal Ahmed. First ACM SIGPLAN Workshop on Gradual Typing (WGT 2020).

The Next 700 Compiler Correctness Theorems. A Functional Pearl.
- Daniel Patterson and Amal Ahmed. 24th Conference on Functional Programming (ICFP 2019).

Rust Distilled: An Expressive Tower of Languages.
- Aaron Weiss, Daniel Patterson, and Amal Ahmed. ML Workshop 2018 (ML 2018).

FunTAL: Reasonably Mixing a Functional Language with Assembly.
- Daniel Patterson, Jamie Perconti, Christos Dimoulas, and Amal Ahmed. 38th Conference on Programming Language Design and Implementation (PLDI 2017).

Linking Types for Multi-Language Software: Have Your Cake and Eat It Too.
- Daniel Patterson and Amal Ahmed. 2nd Summit oN Advances in Programming Languages (SNAPL 2017).

CaptainTeach: Multi-Stage, In-Flow Peer Review for Programming Assignments.
- Joe Gibbs Politz, Daniel Patterson, Kathi Fisler, and Shriram Krishnamurthi. 2014 Conference on Innovation & Technology in Computer Science Education (ITiCSE 2014).

Python: The Full Monty - A Tested Semantics for the Python Programming Language.
- Joe Gibbs Politz, Alejandro Martinez, Matthew Milano, Sumner Warren, Daniel Patterson, Junsong Li, Anand Chitipothu, and Shriram Krishnamurthi. 2013 International Conference on Object Oriented Programming Systems Languages & Applications (OOPSLA 2013).

ACADEMIC SERVICE

40th Conference on Programming Language Design and Implementation (PLDI 2019)
- *Artifact Evaluation Committee Member*

46th Symposium on Principles of Programming Languages (POPL 2019).
- *External Reviewer*
- *Artifact Evaluation Committee Member*

22nd International Conference on Functional Programming (ICFP 2017).
- *External Reviewer*

TEACHING EXPERIENCE
- Instructor of Record, *Verified Compilers* (CS4910), Northeastern, Fall 2019.
- Novel Course Design, *Verified Compilers* (CS4910), Northeastern, Fall 2019.
- Grad TA, *Fundamentals of CS, Accelerated* (CS2500), Northeastern, Fall 2018.
- Head TA, *Probability and Computation* (CS155), Brown, Spring 2013.

INDUSTRY EXPERIENCE
Founder, Position Development - Haskell, Ruby   2014-2016
Media, Publishing, Non-Profits

AWARDS
Northeastern University, 2019 Graduate Teaching Award
National Science Foundation, GRFP 2018 Honorable Mention

EDUCATION
Ph.D., Computer Science (2016-present)
Northeastern University, Boston MA

Bachelor of Science, Math and Computer Science (2014)
Brown University, Providence RI