

Daniel Patterson

dbp@dbpmail.net 401.368.5511

SUMMARY PhD candidate (programming languages).

ACADEMIC PUBLICATIONS *The Next 700 Compiler Correctness Theorems. A Functional Pearl.*

- Daniel Patterson and Amal Ahmed. (Under review)

Oxide: The Essence of Rust.

- Aaron Weiss, Daniel Patterson, Nicholas Matsakis, and Amal Ahmed. (Under review)

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

- Grad TA for *Fundamentals of CS, Accelerated* (CS2500), Northeastern, Fall 2018.
- Head TA for *Probability and Computation* (CS155), Brown, Spring 2013.
- TA for *Introduction to Probability and Computing* (CS45), Brown, Fall 2012.

INDUSTRY EXPERIENCE *Founder, Position Development - Haskell, Ruby* 2014-2016

Media, Publishing, Non-Profits

Contractor, Inhabited Type - OCaml, Amazon AWS Spring 2015

Cloud Orchestration

AWARDS *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