


David Moon Curriculum Vitae

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Education

- 2019- **PhD Candidate, Computer Science • University of Michigan**
Advisor: [Cyrus Omar](#)
- 2018-19 **PhD Student, Computer Science • University of Colorado Boulder**
Transferred to Michigan
- 2011-16 **BA, Mathematics & Computer Science • Williams College**
Thesis: [Specifying & Enforcing Synchronization Disciplines in Multithreaded Programs](#)
Advisor: [Stephen Freund](#)

Publications

- 2023 **Gradual Structure Editing with Obligations • [VL/HCC](#)**
[David Moon](#), Andrew Blinn, Cyrus Omar
- 2023 **Live Pattern Matching with Typed Holes • [OOPSLA](#)**
Yongwei Yuan, Scott Guest, Eric Griffis, Hannah Potter, [David Moon](#), Cyrus Omar
 Distinguished Paper Award
- 2022 **tylr: A Tiny Tile-Based Structure Editor • [TyDe](#)**
[David Moon](#), Andrew Blinn, Cyrus Omar
- 2022 **An Integrative Human-Centered Architecture for Interactive Programming Assistants • [VL/HCC](#)**
Andrew Blinn, [David Moon](#), Eric Griffis, Cyrus Omar
- 2021 **Filling Typed Holes with Live GUIs • [PLDI](#)**
Cyrus Omar, [David Moon](#), Andrew Blinn, Ian Voysey, Nick Collins, Ravi Chugh
- 2015 **Sets Characterized by Missing Sums and Differences in Dilating Polytopes • [JNT](#)**
Thao Do, Archit Kulkarni*, Steven J Miller, [David Moon](#)*, Jake Wellens, James Wilcox
* joint lead authors (authors listed alphabetically by last name)
- 2015 **Sums and Differences of Random Correlated Sets • [JNT](#)**
Thao Do, Archit Kulkarni, Steven J Miller, [David Moon](#), Jake Wellens
- 2014 **Generalizing Zeckendorf’s Theorem to f-decompositions • [JNT](#)**
Philippe Demontigny, Thao Do, Archit Kulkarni, Steven J Miller, [David Moon](#), Umang Varma

Honors

- 2020 **NSF GRFP Honorable Mention**
- 2018 **Outstanding PhD Teaching Award • University of Colorado Boulder**
- 2007-11 **Caroline D Bradley Scholar**

Talks

- 2023 **Gradual Structure Editing with Obligations • [VL/HCC](#)**
- 2022 **tylr: A Tiny Tile-Based Structure Editor • UPenn**
Guest lecture for [Andrew Head](#)’s graduate seminar [Live and Literate Programming](#).
- 2022 **tylr: A Tiny Tile-Based Structure Editor • [TyDe](#)**
- 2021 **Restructuring Structure Editing • [LIVE](#)**
- 2019 **Naturally Editing Typed Expressions with Holes • [Midwest PL Summit](#)**
Joint presentation with Cyrus Omar
- 2019 **Flexible Structure Editing of Well-Typed Expressions • [TyDe](#)**
- 2013 **Sets Characterized by Missing Sums and Differences in Z^D • [YMC](#)**

Teaching

- University of Michigan**
 - 2024 EECS 490: Programming Languages (TA)
 - 2023 EECS 490: Programming Languages (TA)
 - 2022 EECS 490: Programming Languages (TA)
 - 2020 EECS 490: Programming Languages (TA)
- University of Colorado Boulder**
 - 2018 CSCI 3155: Principles of Programming Languages (TA)
- City College of New York**
 - 2018 CSC 59940: Front-End Web Application Development (co-instructor)
- Williams College**
 - 2015 MATH 394: Galois Theory (grader)
 - 2015 CSCI 136: Data Structures (grader)
 - 2012 MATH 200: Discrete Mathematics (grader)

Service

- 2020-22 Program Committee • [LIVE](#)
- 2021 Artifact Evaluation Committee • [PLDI](#)

Industry

- 2016-18 **Software Engineer • [Addepar](#)**
Web application development using Ember.js and Java.
Developed interfaces for benchmarking investment portfolios.