

# Abtin Molavi

Computer Sciences

University of Wisconsin-Madison

[amolavi@wisc.edu](mailto:amolavi@wisc.edu)

<http://pages.cs.wisc.edu/~amolavi>

EDUCATION	<b>University of Wisconsin-Madison, Ph.D. in Computer Sciences</b> <span style="float: right;"><b>2021-</b></span> Advisor: Aws Albarghouthi
	<b>University of Wisconsin-Madison, M.S. in Computer Sciences</b> <span style="float: right;"><b>2021-2023</b></span>
	<b>Harvey Mudd College, B.S. in Computer Science and Math</b> <span style="float: right;"><b>2017-2021</b></span> Graduated with high distinction Departmental honors in Computer Science and Math
PUBLICATIONS	Amanda Xu, <b>Abtin Molavi</b> , Lauren Pick, Swamit Tannu, Aws Albarghouthi. “Synthesizing Quantum-Circuit Optimizers” <i>Proceedings of the 44th ACM SIGPLAN Conference on Programming Language Design and Implementation</i> (PLDI 2023). <b>Abtin Molavi</b> , Amanda Xu, Martin Diges, Lauren Pick, Swamit Tannu, Aws Albarghouthi. “Qubit Mapping and Routing via MaxSAT.” <i>Proceedings of the 55th IEEE/ACM International Symposium on Microarchitecture</i> (MICRO 2022). <b>Abtin Molavi</b> , Thomas Schneider, Mara Downing, Lucas Bang. “MCBAT: Model Counting for Constraints over Bounded Integer Arrays.” <i>Proceedings of the 12th Working Conference on Verified Software: Theories, Tools, and Experiments</i> (VSTTE 2020). <b>Abtin Molavi</b> , Mara Downing, Thomas Schneider, Lucas Bang. “MCBAT: A Practical Tool for Model Counting Constraints on Bounded Integer Arrays.” <i>Proceedings of the 2020 ACM Joint Meeting on European Software Engineering Conference and Symposium on the Foundations of Software Engineering</i> (ESEC/FSE 2020). Mara Downing, <b>Abtin Molavi</b> , Lucas Bang. “Symbolic Execution + Model-Counting + Entropy Maximization = Automatic Search Synthesis.” <i>Proceedings of the 11th International Symposium on Games, Automata, Logics, and Formal Verification</i> (GandALF 2020).
AWARDS AND HONORS	<b>NSF Graduate Research Fellowship Program Honorable Mention</b> <span style="float: right;"><b>2022</b></span> <b>CRA Outstanding Undergraduate Researcher Award Finalist</b> <span style="float: right;"><b>2021</b></span> <b>Harvey Mudd College CS Department Don Chamberlin Research Award</b> <span style="float: right;"><b>2021</b></span>
TEACHING EXPERIENCE	<b>Teaching Assistant</b> , University of Wisconsin-Madison CS 240: Discrete Mathematics <span style="float: right;"><b>Fall 2021</b></span> <b>Grader and Tutor</b> , Harvey Mudd College

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CS 131: Programming Languages	<b>Fall 2020, Spring 2021</b>
Math 171: Abstract Algebra	<b>Fall 2020</b>
Math 131: Real Analysis	<b>Fall 2019</b>
CS 81: Computability and Logic	<b>Fall 2019</b>
CS 60: Principles of Computer Science	<b>Spring 2019</b>