

Christopher R. Aberger

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EXPERIENCE	Stanford University , Palo Alto, California <i>Researcher</i> under Christopher Ré and Kunle Olukotun	<i>November 2018-Present</i>
	Stealth Mode Startup , Palo Alto, California	<i>November 2017-Present</i>
	Stanford University , Palo Alto, California <i>Research Assistant</i> under Christopher Ré and Kunle Olukotun	<i>Fall 2013-Summer 2018</i>
	Google , Mountain View, CA <i>Software Engineering Intern</i> Materialized view query optimization in the F1 (massively distributed) database.	<i>Spring 2017</i>
	Apple Inc. , Austin, TX <i>Design Performance Intern</i> Machine learning applied to performance analysis for A7 chip design.	<i>Summer 2013</i>
	IBM , Austin, TX <i>Hardware Engineering Co-op</i> Functional verification and lab bring-up procedures for Power8 chip.	<i>Summer 2012</i>
EDUCATION	Stanford University , Stanford, California <i>Doctor of Philosophy</i> in Computer Science <i>Master of Science</i> in Computer Science <i>Master of Science</i> in Electrical Engineering	<i>Summer 2018</i> <i>Summer 2016</i> <i>Spring 2015</i>
	University of Wisconsin , Madison, Wisconsin <i>Bachelor of Science</i> in Computer Science <i>Bachelor of Science</i> in Computer Engineering <i>Minor</i> in Mathematics Graduated with Highest Distinction	<i>May 2013</i>
	Zhejiang University , Hangzhou, China Technical communication and Mandarin course	<i>Summer 2009</i>
PUBLICATIONS	HALP: High-Accuracy Low-Precision Training <i>Christopher R. Aberger, Christopher De Sa, Megan Leszczynski, Alana Marzoev, Kunle Olukotun, Christopher Ré, and Jian Zhang</i> preprint	2018
	LevelHeaded: A Unified Engine for Business Intelligence and Linear Algebra Querying <i>Christopher R. Aberger, Andrew Lamb, Kunle Olukotun, and Christopher Ré</i> ICDE	2018
	EmptyHeaded: A Relational Engine for Graph Processing <i>Christopher R. Aberger, Andrew Lamb, Susan Tu, Andres Nötzli, Kunle Olukotun, and Christopher Ré</i> TODS	2017

Mind the Gap: Briding Multi-Domain Workloads with EmptyHeaded	2017
<i>Christopher R. Aberger, Andrew Lamb, Kunle Olukotun, and Christopher Ré</i>	
VLDB Demo	
EmptyHeaded: A Relational Engine for Graph Processing	2016
<i>Christopher R. Aberger, Susan Tu, Kunle Olukotun, and Christopher Ré</i>	
SIGMOD, Best of	
Old Techniques for New Join Algorithms: A Case Study in RDF Processing	2016
<i>Christopher R. Aberger, Susan Tu, Kunle Olukotun, and Christopher Ré</i>	
ICDE Workshop	
Have Abstraction and Eat Performance, Too: Optimized Heterogeneous Computing with Parallel Patterns	2016
<i>Kevin J. Brown, HyoukJoong Lee, Tiark Rompf, Arvind K. Sujeeth, Christopher De Sa, Christopher Aberger, and Kunle Olukotun</i>	
CGO	

LANGUAGES C++, Python, Scala, Java, C

SELECTED COURSES

University of Wisconsin-Madison
Advanced Computer Architecture I (Superscalar design) (ECE 752)
Advanced Computer Architecture II (Multi-core design) (ECE 757)
Digital Engineering Laboratory (ECE 554)
Digital System Design and Synthesis (ECE 555)
Digital Signal Processing (ECE 431)
Operating Systems (CS 537)
Computer Graphics (CS 559)
Algorithms (CS 577)

Stanford University
Databases (CS 145)
Automata and Complexity Theory (CS 154)
Logic (CS 157)
Programming Languages (CS 242)
Topics in Database Management Systems (CS 345)
Program Analysis and Optimizations (CS 243)
Advanced Topics in Operating Systems (CS 240)
Machine Learning (CS 229)

AWARDS

2008, La Crosse Community Foundation Engineering Scholarship
2008-2012, Wisconsin Academic Excellence Scholarship
2009, 2010, Claude and Dora Richardson Engineering Scholarship
2010, Polygon Excellence in Engineering Scholarship
2010-2011, International Engineering Consortium Everitt Award Winner
2011-2012, Tau Beta Pi National Scholar
2012, Fred W. and Josephine H. Colbeck Scholarship Award