Christopher R. Aberger

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EDUCATION

Stanford University, Palo Alto, California — *Expected 2019*
Doctor of Philosophy in Computer Science

Stanford University, Palo Alto, California — *Spring 2015*
Master of Science in Electrical Engineering
Concentration in Software Systems

University of Wisconsin, Madison, Wisconsin — *May 2013*
Bachelor of Science in Computer Science
Bachelor of Science in Computer Engineering
Minor in Mathematics
Graduated with Highest Distinction

Zhejiang University, Hangzhou, China — *Summer 2009*
Technical communication and Mandarin course

TECHNICAL REPORTS

EmptyHeaded: Boolean Algebra Based Graph Processing — 2015
arXiv Manuscript

EXPERIENCE

Stanford University, Palo Alto, California — *Fall 2013-Present*
Research Assistant under Christopher Ré and Kunle Olukotun

Apple Inc., Austin, TX — *Summer 2013*
Design Performance Intern
Machine learning applied to performance analysis for A7 chip design.

IBM, Austin, TX — *Summer 2012*
Hardware Engineering Co-op
Functional verification and lab bring-up procedures for Power8 chip.

Epic Systems, Madison, WI — *Summer 2010, 2011*
Finance Intern

LANGUAGES

Scala, C, C++, Java, JavaScript, Python, Perl, SQL, OpenGL, WebGL, XML, Haskell

SELECTED DESIGN PROJECTS

WebGL Demo — *Spring 2013*
Open ended graphics course project implemented in JavaScript using the WebGL API. Learned how to utilize a device's GPU in a browser without plugins. Built a low-level, self-contained, extensible graphics library.

Consolidated Rename Issue and Bypass Processor — *Spring 2012*
Team leader with 5 total members. Advanced microarchitecture proposed under the direction of professor Mikko Lipasti. Proof of concept project designed using Verilog 2001 and verified using ModelSim. Synthesized and flashed to a Xilinx Virtex II board (with minimal I/O system RS232 and VGA Display) using Xilinx ISE.

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)
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

2010-2011, International Engineering Consortium Everitt Award Winner
2009, 2010, Claude and Dora Richardson Engineering Scholarship
2011-2012, Tau Beta Pi National Scholar
2012, Fred W. and Josephine H. Colbeck Scholarship Award
2010, Polygon Excellence in Engineering Scholarship
2008-2012, Wisconsin Academic Excellence Scholarship
2008, La Crosse Community Foundation Engineering Scholarship
2008, La Crosse Central High School graduation rank: 1/317