

# Daniel Alabi | Curriculum Vitae

Maxwell-Dworkin 138, 33 Oxford Street Cambridge, MA 02138

✉ alabid@g.harvard.edu • 🌐 www.alabidan.me

## Education

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<b>Harvard University</b> <i>Ph.D. Computer Science</i> Advisor: Salil Vadhan	<b>Cambridge, MA</b> <i>2016–Present</i>
<b>Columbia University</b> <i>Graduate Research Scholar, Applied Mathematics</i> Advisor: Chris Wiggins	<b>New York, NY</b> <i>2015–2016</i>
<b>Aquincum Institute of Technology</b> <i>Study Abroad as an Exchange Student</i>	<b>Budapest, Hungary</b> <i>Fall 2012</i>
<b>Carleton College</b> <i>B.A. Mathematics</i> <i>B.A. Computer Science</i> Graduated <i>Magna Cum Laude</i> Advisors: Gail Nelson (Math) and Jeff Ondich (CS)	<b>Northfield, MN</b>    <i>2010–2014</i>

## Honors & Funding Awards

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○ Facebook Emerging Scholar	2018-2020
○ Courtlandt S. Gross Memorial Scholarship	2018
○ Harvard CRCS Graduate Student Fellow	2018
○ Interact Fellow	2015
○ Member, Mortar Board College Senior Honor Society	2013
○ hackNY Fellow	2012
○ Kellogg International Scholarship	2010-2014
○ United States Achievers Program (USAP) Fellow	2009-2010

## Papers

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Refereed.....

- Unleashing Linear Optimizers for Group-Fair Learning and Optimization.  
Daniel Alabi, Nicole Immorlica, Adam Tauman Kalai.  
*COLT 2018.*
- Learning Certifiably Optimal Rule Lists for Categorical Data.  
Elaine Angelino, Nicholas Larus-Stone, Daniel Alabi, Margo Seltzer, and Cynthia Rudin.  
*JMLR 2018.*  
*Supersedes KDD 2017, SysML 2018 papers*
- Systems Optimizations for Learning Certifiably Optimal Rule Lists.  
Nicholas Larus-Stone, Elaine Angelino, Daniel Alabi, Margo Seltzer, Vassilios Kaxiras, Aditya

Saligrama, and Cynthia Rudin.  
*SysML 2018*.

- Learning Certifiably Optimal Rule Lists.  
Elaine Angelino, Nicholas Larus-Stone, Daniel Alabi, Margo Seltzer, and Cynthia Rudin.  
*KDD 2017*.

**Selected for oral presentation**

- PFunk-H: Approximate Query Processing using Perceptual Models.  
Daniel Alabi and Eugene Wu.  
*HILDA@SIGMOD 2016*.

**Selected for full oral presentation**

**Theses & Technical Reports**.....

- Exploiting Visual Perception for Sampling-Based Approximation on Aggregate Queries.  
Daniel Alabi.  
*Columbia University Technical Report 1613*. September 7, 2015.
- Maximum Matching Problem: A Randomized, Algebraic Approach.  
Daniel Alabi.  
*Senior Capstone Mathematics Project*. May 15, 2014.

## Teaching & Service

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**Classes**.....

- **Harvard University** **Cambridge, MA**  
*Teaching Fellow, CS 124: Algorithms & Data Structures* *January 2018–May 2018*  
Spring 2018 (Prof. Jelani Nelson & Prof. Salil Vadhan)
- **Carleton College** **Northfield, MN**  
*Teaching Assistant, CS 201: Data Structures* *January 2014–June 2014*  
Winter 2014 (Prof. Jadrian Miles); Spring 2014 (Prof. Amy Dalal)
- **Carleton College** **Northfield, MN**  
*Teaching Assistant, CS 111: Introduction to Computer Science* *Sep. 2013–Nov. 2013*  
Fall 2013 (Prof. Andy Exley)

**Leadership & Service**.....

- International Student Peer Leader, Carleton College 2011-2012
- President, Carleton Computing Society 2011-2013
- Student Department Advisor for the CS Department at Carleton College 2013-2014
- Citizen Schools Volunteer Instructor 2015
- Judge, CarlHacks 2015
- Mentor, hackNY Summer Fellowship 2015, 2016
- FOCS External Reviewer 2017

## Industry Experience

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1. Database Kernel Engineer, MongoDB Inc. June 2014–July 2015
2. Software Engineering Intern, MongoDB Inc. June 2013–August 2013
3. Software Engineering Intern, Trendrr (acquired by Twitter, Inc.) June 2012–August 2012

## Relevant Coursework

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### **Harvard University**, Cambridge, MA

Computational Complexity; Probability Theory; Markets for Networks and Crowds; Fairness, Privacy, and Validity in Data Analysis (audit); Advanced Algorithms; Online Convex Optimization; Algorithms at the End of the Wire; Research Topics in Operating Systems

### **Columbia University**, NYC

Analysis of Algorithms I; Algorithmic Techniques for Massive Datasets; Statistical Machine Learning; Elementary Stochastic Processes; Database Systems Implementation

### **Aquincum Institute of Technology (Study Abroad)**, Budapest, Hungary

Combinatorial Optimization; Graph Theory; Algorithms & Data Structures

### **Carleton College**, Northfield, MN

Artificial Intelligence; Natural Language Processing; Advanced Algorithms; Operating Systems; Programming Languages; Data Mining; Computability & Complexity; Computer Organization & Architecture; Database Systems; Software Design; Mobile Application Development; Computer Music & Sound; Algorithms; Statistical Inference; Probability; Elementary Theory of Numbers; Abstract Algebra; Ordinary Differential Equations; Linear Algebra; Mathematical Structures; Multivariable Calculus