

## Frank Austin Nothaft

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### Education

#### University of California, Berkeley

MS/PhD, Computer Science. August 2013–present. GPA: 3.77.

#### Stanford University

Bachelor of Science with Honors, Electrical Engineering. June 2011.

GPA: 3.24. Minor in Management Science & Engineering

### Publications

#### *Peer-Reviewed Conference Proceedings*

**Frank Austin Nothaft**, et al. “Rethinking data-intensive science using scalable analytics systems.” To appear in *Proceedings of the International Conference on Management of Data*, May 2015 (SIGMOD ’15).

**Frank Austin Nothaft**, Luis Fernandez, Stephen Cefali, Nishant Shah, Luke Darnell, and Jacob Rael. “Pragma-based floating-to-fixed point conversion for the emulation of analog behavioral models.” In *Proceedings of the International Conference on Computer-Aided Design*, November 2014 (ICCAD ’14).

Krishna Malladi, **Frank Austin Nothaft**, Kartika Periythambi, Benjamin Lee, Christos Kozyrakis, and Mark Horowitz. “Towards energy-proportional datacenter memory with mobile DRAM.” In *Proceedings of the International Symposium on Computer Architecture*, June 2012 (ISCA ’12).

#### *Technical Reports*

Matthew Massie, **Frank Austin Nothaft**, Christopher Hartl, Christos Kozanitis, Anthony D. Joseph, and David Patterson. “ADAM: Genomics formats and processing patterns for cloud scale computing.” *University of California, Berkeley Technical Report UCB/EECS-2013-207*. November 2013.

#### *Theses*

**Frank Austin Nothaft**, “Design strategies for compiler managed instruction stores.” Honors Thesis, Stanford University, June 2011.

### Honors

#### NSF Graduate Research Fellowship

National Science Foundation, 2013–2016

#### Hugh Hildreth Skilling Award for Teaching Excellence

Stanford University Department of Electrical Engineering, June 2011

#### Departmental Honors

Stanford University Department of Electrical Engineering, June 2011

### Presentations

#### *Conference Talks*

“The Emulation of Analog Behavioral Models.”  
*International Conference on Computer Aided Design (ICCAD ’14)*,  
San Jose, CA, November 2014

“ADAM: Fast, Scalable Genome Analysis”  
*Bioinformatics Open Source Conference (BOSC ’14)*, Boston, MA, July 2014  
*Spark Summit*, San Francisco, CA, June 2014

<b>Presentations (con't.)</b>	<b><i>Invited Talks</i></b>	
	“Fast Variant Calling with ADAM and avocado” <i>KTH Kista/SICS</i> , Kista, Sweden, February, 2015	
	“ADAM: Fast, Scalable Genome Analysis” <i>DNANexus</i> , Mountain View, CA, December 2014 <i>Novartis Institutes</i> , Cambridge, MA, October 2014 <i>Wellcome Trust Genome Center</i> , Hinxton, UK, July 2014 <i>Strata Big Data Science Meetup</i> , Santa Clara, CA, February 2014	
<b>Experience</b>	“Automation For Validating Behavioral Models Against Schematics” With Nishant Shah, <i>Cadence Mixed Signal Design Summit</i> , San Jose, CA, September 2012	
	<b>Broadcom, Engineer, Staff 1—IC Design</b>	<b>April 2012—present</b>
	<b>Broadcom, Engineer—IC Design</b>	<b>June 2011—April 2012</b>
	Design verification and automation for RF/mixed-signal integrated circuits	
	<b><i>Internships</i></b>	
	<b>NVIDIA, ASIC Intern</b>	<b>Summer 2010</b>
	Design validation, test, and characterization for GPU systems	
<b>Teaching</b>	<b>SAIC, Systems Engineering Intern</b>	<b>Summer/Winter 2008</b>
	Evaluation of technologies for high-reliability emergency telecommunications	
	<b>AJ Engineers, Inc., Electrical Engineering Intern</b>	<b>Summer 2007</b>
	Design and drafting of electrical systems for dwellings	
	<b>Digital Systems Design Lab</b>	<b>Spring 2010—2011</b>
<b>Service</b>	Dr. James Weaver, Stanford University, Course Assistant	
	<b>Digital Systems Design 1</b>	<b>Fall &amp; Winter 2009—2011</b>
	Professor Subhasish Mitra, Stanford University, Course Assistant	
	<b><i>Standards Bodies</i></b>	
	Co-chair, GA4GH Containers and Workflows Working Group, 2015	
	Member, GA4GH Data Working Group, 2014–present	
	<b><i>Conference Organization</i></b>	
	New Frontiers in Computing (NFIC)	
	<i>Co-Chair</i> , Stanford, CA, 2010	
	<i>Organizing Committee Member</i> , Stanford, CA, 2009	
	<b><i>Reviewing</i></b>	
	Hot Topics in Networks Workshop (HotNets), 2014	

**Service  
(con't)**

***Professional Society Leadership***

Chair, IEEE Orange County Computer Society, 2013

Vice Chair, IEEE Orange County Computer Society, 2012

Chair, Stanford University IEEE Student Branch, June 2009–June 2011

***Outreach***

Project Mentor

*Techbridge*, Oakland, CA, 2014

Panel on Careers in Science, Technology, Engineering, and Mathematics

*The Wooden Floor*, Santa Ana, CA, May 2012

***Professional Society Membership***

**IEEE:** Member: 2011–present, Student Member: 2007–2011

**ACM:** Member: 2011–present, Student Member: 2011

**ISCB:** Student Member: 2014–present

***Students Mentored***

*Eric Tu*, UC Berkeley, Undergraduate/Masters

*Niranjana Kumar*, UC Berkeley, Undergraduate

*Ananth Pallaseni*, UC Berkeley, Undergraduate