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).

Invited Journal Articles

Benedict Paten, et al. "ADAM: Genomics formats and processing patterns for cloud scale computing." *Journal of the American Medical Informatics Association.* June 2015.

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

Presentations (con't.)

Conference Talks (con't.)

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

Invited Talks

"Fast Variant Calling with ADAM and avocado"
KTH Kista/SICS, Kista, Sweden, February, 2015

"ADAM: Fast, Scalable Genome Analysis"
DNANexus, Mountain View, CA, December 2014
Novartis Institutes, Cambridge, MA, October 2014
Wellcome Trust Genome Center, Hinxton, UK, July 2014
Strata Big Data Science Meetup, Santa Clara, CA, February 2014

"Automation For Validating Behavioral Models Against Schematics"
With Nishant Shah, *Cadence Mixed Signal Design Summit*, San Jose, CA, September 2012

Experience

Broadcom, Engineer, Staff 1—IC Design **April 2012–present**
Broadcom, Engineer—IC Design **June 2011–April 2012**
Design verification and automation for RF/mixed-signal integrated circuits

Internships

NVIDIA, ASIC Intern **Summer 2010**
Design validation, test, and characterization for GPU systems

SAIC, Systems Engineering Intern **Summer/Winter 2008**
Evaluation of technologies for high-reliability emergency telecommunications

AJ Engineers, Inc., Electrical Engineering Intern **Summer 2007**
Design and drafting of electrical systems for dwellings

Teaching

Digital Systems Design Lab **Spring 2010–2011**
Dr. James Weaver, Stanford University, Course Assistant

Digital Systems Design 1 **Fall & Winter 2009–2011**
Professor Subhasish Mitra, Stanford University, Course Assistant

Service

Standards Bodies

Co-chair, GA4GH Containers and Workflows Working Group, 2015
Member, GA4GH Data Working Group, 2014–present

Conference Organization

New Frontiers in Computing (NFIC)
Co-Chair, Stanford, CA, 2010
Organizing Committee Member, Stanford, CA, 2009

Reviewing

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
Niranjan Kumar, UC Berkeley, Undergraduate
Ananth Pallaseni, UC Berkeley, Undergraduate