




MICHAEL B. SULLIVAN

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RESEARCH INTERESTS	I am interested in the design of dependable and efficient computer systems. My current research provides strong-yet-inexpensive reliability in computer memory and arithmetic.	
EDUCATION	University of Texas, Austin, TX Ph.D. in Computer Engineering M.S.E. in Computer Engineering	2015 2011
	George Mason University, Fairfax, VA M.S. in Computer Science B.S. in Computer Engineering and B.A. in Mathematics, summa cum laude	2009 2007
SELECTED AWARDS	Cockrell School of Engineering Fellowship National Defense Science & Engineering (NDSEG) Graduate Fellowship Outstanding Achievement Award in Graduate Computer Science GMU University Scholar	2011–13 2008–11 2009 2004–08
SELECTED PUBLICATIONS	“Understanding Error Propagation in Deep Learning Neural Network (DNN) Accelerators and Applications,” <i>Proceedings of the International Conference on High Performance Computing, Networking, Storage and Analysis (SC)</i> , 2017.	2017
	“All Inclusive ECC: Thorough End-to-End Protection for Reliable Computer Memory,” <i>Proceedings of the International Symposium on Computer Architecture (ISCA)</i> , 2016.	2016
	“Bamboo ECC: Strong, Safe, and Flexible Codes for Reliable Computer Memory,” in the <i>International Symposium on High Performance Computer Architecture (HPCA)</i> , February 2015.	2015
	“Truncated Logarithmic Approximation,” in the <i>International Symposium on Computer Arithmetic (ARITH)</i> , April 2013.	2013
	“Containment Domains: A Scalable, Efficient, and Flexible Resilience Scheme for Exascale Systems,” in the <i>Conference on High Performance Computing, Networking, Storage and Analysis (SC)</i> , 2012.	2012
PROFESSIONAL EXPERIENCE	NVIDIA Corporation, Santa Clara, CA Research Scientist, Architecture Research Group (ARG)	2015–
	Research Assistant Positions University of Texas, Austin, TX Los Alamos National Laboratory (LANL), Los Alamos, NM George Mason University, Fairfax, VA Argonne National Laboratory, Argonne, IL University of California at Irvine, Irvine, CA	2010–2015 2011 2007–2008 2007 2007
HARDWARE	VHDL/Verilog and the Synopsys tools for RTL design and analysis; binary instrumentation and workload characterization; microarchitectural simulation.	
SOFTWARE	C/C++, Matlab, Python; Cuda/OpenCL/MPI/OpenMP; exact & heuristic optimization.	