STEVO BAILEY

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EDUCATION

UNIVERSITY OF CALIFORNIA, BERKELEY, Berkeley, CA (UCB) Fall 2012–Present

- Doctor of Philosophy in Electrical Engineering and Computer Science (GPA: 3.97 / 4.00)

UNIVERSITY OF VIRGINIA, Charlottesville, VA (UVA) Fall 2008–Spring 2012

- BS in Engineering Science, Minor in Electrical Engineering, BA in Physics, BA in Music (GPA: 3.86 / 4.00)

Programming Skills: Java, Perl, Python, Bash, Verilog, Chisel, TCL, MATLAB, LaTeX, HTML, CSS
Computer Skills: Linux, Cadence CAD tools, Synopsys CAD tools, Git, Microsoft Office, VIM

EMPLOYMENT HISTORY

Graduate Researcher, UCB Fall 2012–Present

- Researching under Professors Bora Nikolic and Krste Asanovic
- Simulated and characterized the energy efficiency of a manycore processor with per-core DVFS
- Designed and synthesized a histogram filter image processor in a 32nm bulk CMOS PTM
- Designed a touch screen capacitance-to-digital converter in a 45nm bulk CMOS PTM
- Scripted a flow to calculate the SER of an arbitrary combinational circuit logic block
- Established and perfected the place-and-route flow for a custom RISC processor with on-chip DVFS, taped out in a 28nm UTB FDSOI process
- Currently researching energy optimization and automation of combinational logic resiliency techniques

Intern, NASA Jet Propulsion Laboratory Summer 2014

- Designed a 10 GHz bandwidth ASIC spectrometer digital backend using Chisel, a Berkeley hardware construction language

Researcher, UVA Summer 2011

- Researched as an undergrad with Professor Mircea Stan and graduate students
- Investigated an integrated circuit modular adder design with error detection and correction

PUBLICATIONS

Bailey, S. and Stan, M. "A new taxonomy for reconfigurable prefix adders," IEEE International Symposium on Circuits and Systems, 2012.

Jevtic, R., Hanh-Phuc Le, Blagojevic, M., Bailey, S., Asanovic, K., Alon, E., and Nikolic, B., "Per-Core DVFS With Switched-Capacitor Converters for Energy Efficiency in Manycore Processors," IEEE Transaction on Very Large Scale Integration (TVLSI) Systems, vol. PP, no. 99, 2014.

AWARDS AND HONORS

Electrical Engineering and Computer Sciences Departmental Fellowship, UCB Fall 2012-Spring 2013
Best Individual Project Presentation at UVA's Spring Engineering Science Symposium Spring 2012
ASM Eastern Virginia Scholarship Fall 2008-Spring 2012

ACTIVITIES AND LEADERSHIP POSITIONS

Lecturer, IEEE International Symposium on Circuits and Systems (ISCAS), Seoul, South Korea May 2012

- Gave a 20 minute professional lecture on my publication at the conference
- Presented my poster after being selected as a finalist for the Student Best Paper Award

Student, Engineering in a Global Context, Stuttgart, Germany Summer 2009

- Attended presentations at 12 different locations including German engineering companies, universities, and museums to hear speakers and ask questions related to research topic
- Researched and wrote a 10 page paper comparing German and American sustainability

Webmaster, American Institute for Aeronautics and Astronautics Club, UVA Fall 2008–Spring 2010

- Completely redesigned and managed the website for the aerospace engineering club at UVA