Eric Krause

Portland OR, 97219 • (541) 337-5788
eric@sauerkrause.org • www.sauerkrause.org

Education

M.S., Computer Engineering — **GPA: 3.86/4.00**
Portland State University, Portland Oregon – Expected Graduation: 12/2013 — *2011-Current*

Post-Bac Studies, Electrical/Computer Engineering — **GPA: 3.88/4.00**
Portland State University, Portland Oregon — *2010-2012*

B.A., Environmental Studies — **GPA: 3.80/4.00**
University of Oregon, Eugene Oregon — *2005-2009*

Relevant Coursework

- Microprocessor Design
- Superscalar Processor System Architecture
- Parallel Computing Architecture
- SoC Design with FPGAs
- Embedded Systems with FPGAs
- Embedded Software Programming

Technical Skills

- **Proficient Languages:** Verilog, C, Assembly (ARM, z80, MIPS, PicoBlaze)
- **Familiar Languages:** C++, SystemVerilog, Python, Bash, Java (for Android Development)
- **Hardware:** RTL design and debug, digital design and SoC/embedded system design and debug with FPGAs. Experience using test equipment in a laboratory setting to verify and debug digital designs.
- **Software:** Experience with Mac/Windows/Linux. Professional experience with Xilinx Toolchain (ISE, Lab Tools, EDK, SDK). Limited experience with GNU tools (Make, GCC) and VCS (git).

Experience

Data Center Group Intern – Intel Corporation – *Hillsboro, Oregon* — *3/2011 - 9/2013*

- Wrote RTL and testbenches for an FPGA-based DDR3 Memory Error Injector (MEI) interposer in Verilog.
- Developed automated testing CLI utilities in Python to simplify testing MEI on Intel server platforms.
- Optimized existing FPGA RTL designs to improve timing and enhance features per customer needs.
- Tested memory error injection functionality of MEI and memory error detection on Intel server platforms.
- Received professional award for identifying, debugging and repairing a bug affecting a critical function of a key product in 2013.

IEEE Computer Engineering Tutor – Portland State University – *Portland, Oregon* — *9/2012 - Current*

- Instructed students on a variety of Computer Engineering topics, including programming and digital design.
- Adapted teaching strategies to the unique background and abilities level of each student.

Platform Deployment Tech Volunteer – Free Geek – *Portland, Oregon* — *9/2013 - Current*

- Assembled and repaired desktops, workstations, and servers.
- Tested and debugged hardware peripherals for reuse or recycling.
- Installed Linux OS and other software.

Term Project (Computer Architecture) – Portland State University – *Portland, Oregon* — *3/2013*

- Implemented simulation of branch predictor and branch target buffer in C++.
- Designed N-way associative cache, return address stack, and fully-associative cache structures in C++ .
- Evaluated performance of many design iterations using instruction traces from an unknown processor.

Term Project (Embedded Systems with FPGAs) – Portland State University – *Portland, Oregon 12/2012*

- Designed, assembled, and programmed an autonomous, color-seeking robot controlled by an FPGA-based SoC.
- Implemented computer vision, environmental awareness, and behavioral control using Verilog and ASM.

Honors

Member and Organizer – Etta Kappa Nu (HKN) – *IEEE Honors Society* — *12/2012 - Current*

- Planed and organized events to promote HKN at Portland State University.

Scholarship Recipient – Ford Family Foundation – *Academic Scholarship*

- Awarded Ford Family Foundation Scholarship for leadership and academic excellence. *8/2005*
- Awarded Graduate Scholarship for academic excellence. *8/2012*