

ERIC KRAUSE

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EDUCATION

M.S., Computer Engineering <i>Portland State University, Portland Oregon – Expected Graduation: 12/2013</i>	GPA: 3.86/4.00 <i>2011-Current</i>
Post-Bac Studies, Electrical/Computer Engineering <i>Portland State University, Portland Oregon</i>	GPA: 3.88/4.00 <i>2010-2012</i>
B.A., Environmental Studies <i>University of Oregon, Eugene Oregon</i>	GPA: 3.80/4.00 <i>2005-2009</i>

RELEVANT COURSEWORK

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

TECHNICAL SKILLS

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- **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

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- 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.
 - 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.
- Microprocessor Design Term Project** – Portland State University – *Portland, Oregon* *3/2013*
- Implemented simulation of branch predictor, branch target buffer as a term project for Comp. Architecture.
 - 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.
- Embedded Systems with FPGAs Term Project** – 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.
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- ## 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*