

Aaron S. Crandall, BSEE, (MSCS December 2005)

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Objective: Working and learning in a technical environment.

Degree: BSEE, Multnomah School of Engineering at the University of Portland, graduated December 15th, 2000. Continued Education in Oregon Graduate Institutes's Computer Science and Engineering department.
MSCS, Oregon Graduate Institute/OHSU, expected December 2005.

Work History:

Research Systems Engineer at Oregon Graduate Institute

Duties: Server support, user desktop support, network services development.
Platforms used include Win32, Solaris, GNU/Linux and OSX.
My duties in my current position are varied; please see the second page of my resume for a more in depth description.
Started: July 2002, ended July 2005.
Contact: JD Harris at 503-748-4038 or jd@cse.ogi.edu

Electrical Engineer at PAE Consulting Engineers

Duties: Electrical designer and project engineer.
Started: June 2001, ended October 2001.
Contact: Stephen Turina, at 503-226-2921

Co-op at Cypress Semiconductor.

Duties: Focused on porting Solaris software to a GNU/Linux platform in a software development environment. Also worked as a junior systems administrator.
Started: May 2000, ended June 2001.
Contact: Rick Tinling, at 503-526-1861 or rxt@cypress.com

Special Projects Department of Computer Services at the University of Portland.

Duties: Focused on installation and maintenance of the University phone and data systems. Also worked with students, staff and faculty to provide the best support possible.
Started: May 1999, ended December 2000.
Contact: Kerry Walker, at 503-748-4027 (currently at OHSU) walkerke@ohsu.edu

Engineering internship at Nabisco as a contractor via Real Time Solutions.

Duties: Centered on the creation of new tools for the local network at Nabisco. Worked with bakery workers to enhance worker computer systems.
Started: May 1998, ended September 1998.

Some more in depth information about me and what I have accomplished:

Education in Depth:

Graduated with a computer track Electrical Engineering bachelor's degree from the University of Portland in December 2000. The courses focused on the hardware and software levels of computer design and construction.

Continued education through a thesis master's at Oregon Graduate Institute. The courses were taken in the Computer Science and Engineering department with a focus on advanced computer science topics. The courses have included a variety of graduate level topics in Computer Science:

- *) Database systems
- *) Software Engineering Management
- *) Operating systems
- *) Computer Hardware Architecture
- *) Spoken Language Systems
- *) Software Architecture
- *) Cryptography
- *) Automata and Formal Languages
- *) Distributed Computing Systems
- *) Compiler Design and Implementation

I am currently finishing my thesis research. Through the fall term I will be accomplishing the bulk of the thesis research, and finishing the thesis writeup. With the current trajectory I should be finished as early as December 2005. After that I will be looking for work. Preferably, I will be looking for contract work as I am applying for PhD programs that should begin in Fall 2006. This leaves an opportunity to gain some real world experience between my times at educational institutions.

My thesis is focused in the area of Evolutionary Computation. In this area, software is written to generate a solution to a given problem. This method of problem solving has proven to be quite capable of finding acceptable solutions to very difficult problems in the world of computer science.

For some current independent projects, I have been working with the Linux Xen server virtualization software to run servers and workstations. I have also been involved in using the Open Source PBX, Asterisk, to provide VOIP solutions for a small group of friends and relatives.

My recent work position at Oregon Graduate Institute required a diverse set of skills. I worked for the CSE department as a member of a small team. I had to develop an array of abilities to fulfill my various duties during my time there. My background was in GNU/Linux and OpenBSD before beginning at OGI, but since then I have developed strong skills on Microsoft Windows, as well as Solaris and Apple's OSX.

I had several defined duties, and many "as needed" ones. My primary duties included user support at the workstation level in Win32, OSX and Linux, management of the wireless network, OSX platform lead, and running the computer labs using PXE network management scripting tools. I finished by time as the lead in charge of keeping our Linux servers and workstations up to date, as well as rolling out new network services. The "as needed" duties run the gamut of options, from configuration of 3D imaging cameras to designing a system for leveling our server room racks.

Some of my more notable accomplishments at OGI have been the automation of our server tools using Make and csh, the creation of a modern UNIX printing infrastructure, a handful of Perl scripts to automate web submissions for grant proposals. I updated our Expect-based control system to handle new types of hardware on our wireless network. I also overhauled our Rembo-C scripted PXE system to better manage our student computer labs.

In previous positions I have spent time working in and around the telecommunications for the University of Portland, and created a web based, Perl CGI driven, MySQL backed registration system for the students at UP to ease the maintenance of the dorm networks. I did design power and lighting while at PAE Consulting Engineers for buildings and data rooms. I ported C/C++/Lex/Yacc/shell programs from Solaris to GNU/Linux environments while at Cypress Semiconductor and wrote a solid DOS and Ghost based backup system while at Nabisco.

For an example of personal projects, I have put together a floppy based web server, built a variety of OpenBSD based NAT firewalls, and constructed point to point 802.11b wireless antennas. Programming languages that I am capable with include C, C++, Perl, Ruby, Shell, JavaScript, PHP, Java, Yacc, Lex, SQL, TCL, and others.

Thank you for reading this far, I hope you will consider me,

-- Aaron S. Crandall