

Alain J. Roy

14208 NE 73rd St.
Redmond, WA 98052
(608) 658-0864

alain.roy@pobox.com
<http://www.pobox.com/~alain.roy>

GOAL

A job in software engineering and technical problem solving that makes the world a better place.

EDUCATION

Ph.D. University of Chicago, Computer Science. August, 2001
Dissertation: *End-to-End Quality of Service for High-End Applications*
M.S. University of Chicago, Computer Science, March 1997
B.S. University of Chicago, Mathematics, June 1994

RESEARCH AND DEVELOPMENT EXPERIENCE

Staff Engineer, November 2015 – Present

VMware Inc., Bellevue, WA

I am working on Xenon and Photon Controller

Architect, September 2015 – November 2015

Senior Principal Software Engineer, September 2014-September 2015

Principal Software Engineer, November 2013-September 2014

Senior Software Engineer, September 2012-November 2013

F5 Networks, Seattle, WA

I am a software engineer working on F5 Network's cloud management product, BIG-IQ Cloud. BIG-IQ Cloud integrates with various cloud platforms (Amazon EC2, VMware, OpenStack...) to manage, configure and dynamically deploy our BIG-IP application delivery controller. This provides a way for application developers to easily obtain load-balancing, security, and acceleration services for their application without becoming BIG-IP experts. My activities include:

- Writing concurrent Java-side code, accessible via RESTful APIs
- Designing, implementing, testing, and supporting integrations with cloud and network environments, especially Cisco APIC, VMware, OpenStack, and System Center Virtual Machine Manager
- Helping other teams to learn our underlying frameworks through training, design assistance, and code reviews
- Demonstrating our software to potential customers
- Troubleshooting for users, both internal and external

Researcher, 2008-September 2012

Associate Researcher, 2001-2008

Condor Project, Department of Computer Sciences, University of Wisconsin-Madison

I was the Software Coordinator for the Open Science Grid (OSG), a national collaboration funded by DOE and NSF to provide a distributed computing infrastructure that includes many

universities and national laboratories across the US. I lead OSG Software Team since 2002 (originally under different funding). Our goal was to provide an easy-to-use software distribution for distributed computing software. Initially I was the sole person developing the software stack: I did design, implementation, debugging, documentation, and user support. As the project became successful, we received more funding. Eventually, I lead a team with three other local people and about five people at other institutions. My activities included:

- Managing a team of developers
- Understanding, building, configuring, and debugging a wide variety of software
- Interacting with software developers and users
- Coordinating a complex software release to meet needs of a wide variety of users
- Implementing many tools using Perl, Python, Bourne shell, Subversion, and more

Other duties at this position included:

- Writing code in C++ and Perl for the HTCondor high throughput computing software (HTCondor is a batch system, similar in concept to PBS and Gridengine)
- Maintaining the C++ ClassAd library, used for job matchmaking
- Programming miscellaneous projects in C++ and Perl
- Designing and developing of an alert system in C++ for finding problems in clusters
- Providing guidance to students doing a variety of research projects
- Hiring new staff
- Writing technical papers and documentation, using LaTeX and HTML
- Writing and presenting tutorials both nationally and internationally, including:
 - OSG Summer School 2010 – 2012 (Organizer/teacher)
 - International School on Grid Computing, 2005 – 2009 (Program committee/teacher)
- Organizing our yearly conference, called Condor Week:
http://research.cs.wisc.edu/htcondor/past_condor_weeks.html
- Reviewing papers for various conferences

Graduate Student, 1994-2001

Department of Computer Science, University of Chicago

- Developed and implemented system in C on Linux for providing Quality of Service
- Developed Quality of Service mechanisms, particularly for IP networks. Used C on Linux, Differentiated Services, RSVP, and Cisco 7505 routers
- Investigated natural language communication with robots
- Implemented simulator for robot-human interactions in C++ on the Macintosh.
- Taught classes
- Published conference and journal papers
<http://aslag.net/publications/>

OTHER PROGRAMMING EXPERIENCE

Personal Programming

To keep my skills fresh, I've been programming during my personal time. For example, I created a program that plays an online video game and achieves scores ten times better than mine:

<http://aslag.net/projects/bejeweled/>

Programmer, Studio Aslag, 1999

Developed innovative program to create doctors' on-call schedules in C++ for the Macintosh

Programmer, Paranoid Productions, 1996-1997

Assisted development of a commercial video game, *Damage Inc*, in C for the Macintosh

Consultant to Bungie Software, 1996

Developed graphic utility for development of a video game, *Myth*, in C++ for the Macintosh

Programmer, University of Chicago, Linguistics Department, 1995-1996

Sole programmer for interactive teaching program for Mayan Language in C++ for the Macintosh

Programmer, Bungie Software, 1994

Assisted development of a commercial video game, *Marathon*, in C for the Macintosh

COMPUTER SKILLS

- Unix programming
- Proficient with C and Unix (Mostly Linux, but a bit of other Unix systems)
- Comfortable with C++, Python, Perl, Shell scripts, Lisp, HTML, Windows, and Mac OS X
- Acquainted with Java, Assembly, LaTeX

ACTIVITIES

- Hobbyist magician and juggler
- Bread baking enthusiast