

Alain J. Roy

859 Edgemore Dr.
Sun Prairie, WI 53590
(608) 837-4226

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

Researcher, 2008-present

Associate Researcher, 2001-2008

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

• Currently I am 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, and have done so since 2002 (originally under different funding). Our goal is 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. Today, I lead a team with three other local people and about five people at other institutions. My activities include:

- 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 have included:
- Writing code in C++ and Perl for the Condor high throughput computing software (Condor is a batch system, similar in concept to PBS and Gridengine)
 - Maintenance of the C++ ClassAd library, used for job matchmaking
<http://research.cs.wisc.edu/condor/classad/>
 - Miscellaneous programming in C++ and Perl
 - Design and development of an alert system in C++ for finding problems in clusters
 - Providing guidance to students doing a variety of research
 - Hiring of new staff
 - Writing technical papers and documentation, using LaTeX and HTML
 - Writing and presenting tutorials both nationally and internationally, including:
 - OSG Summer School 2010 – 2011 (Organizer/teacher)
 - International School on Grid Computing, 2005 – 2009 (Program committee/teacher)

- Organizing our yearly conference, called Condor Week:
http://research.cs.wisc.edu/condor/past_condor_weeks.html
- Reviewing of 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://pages.cs.wisc.edu/~roy/publications.html>

OTHER PROGRAMMING EXPERIENCE

Personal Programming

To keep my skills fresh, I've been programming during my personal time. One exemplar project is a program that plays an online video game and achieves scores ten times better than me:

<http://pages.cs.wisc.edu/~roy/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