William C. Maier

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Summary

I'm fascinated by big data in science and on the web. These huge new datasets present some of today's most exciting challenges, and open source software has given me the tools to help tackle them. I believe that open standards and free software can not only measure new particles or reveal social networks — I believe they can save the world, and I want to help.

Experience

2006 –

Systems programmer

CMS Tier 2 Center, University of Wisconsin High Energy Physics

Lead operations of the University's NSF- and DOE-supported LHC physics analysis center.

Grew Linux cluster from 200 to 2300 cores for analysis and from 100 terabytes to 1.2 petabytes for distributed data storage.

Developed custom software in Python to monitor cluster performance.

Lead transition from Cfengine to Puppet to improve cluster management.

Optimized performance of critical PostgreSQL database servers.

Interfaced cluster with international computing resources via the Open Science Grid.

Provided a reliable, highly distributed 24/7 Condor batch computing environment to a global user base.

Analyzed security breaches and developed proactive measures to increase site and user security.

2005 – 2006

Student systems administrator

CMS Tier 2 Center, University of Wisconsin High Energy Physics

Installed and repaired Linux compute nodes for LHC physics analysis.

Developed a custom request tracking system in Python based on Roundup.

Deployed fiber-optic network connections, supporting sustained data transfer rates of more than 10 gigabits per second.

Developed and configured custom Nagios and Ganglia probes to monitor grid and infrastructure services

2005 – 2006   Student systems administrator

Computer Aided Engineering, University of Wisconsin College of Engineering

Installed and maintained a large, OpenAFS-based software repository including open source and commercial software.

Maintained and improved the Center's request tracker, written in Perl.

Supported college-wide mail, webmail, DNS and Apache virtual hosts in addition to large Linux and Solaris desktop labs.

Education

2002 – 2006   University of Wisconsin

Madison, Wisconsin, USA

BA, History of Science, 3.6 GPA (Fall 2006)

Dean's list (Fall 2003)

Advanced study of German

2001 – 2002   University of Wisconsin – Milwaukee

Milwaukee, Wisconsin, USA

Studied German at university during senior year of high school.

Talks and publications

Storage at UW-Madison CMS Tier-2

Open Science Grid Storage Forum, 2009 and 2010

Grid computing panel

Condor Week, University of Wisconsin, 2009

dCache Performance and Management

USCMS Tier 2 Computing Workshop, UCSD, 2007

Contributions and Memberships

2008 –   OpenBSD developer

2002 –   Madison Linux Users Group member

2004 – 2005   Social Justice Center board of directors, secretary

2004 – 2005   Madison Community Cooperative board of directors, member

Developer of open source projects including cli, tsar, dcache-tools and ptemplate.

Contributor to open source projects including Mercurial, Sphinx and tmux.

Interests

Operating systems (BSD, Linux);

Programming (Python, shell);

Distributed computing (Condor, dCache, HDFS);

Performance and reliability monitoring (Ganglia, Nagios);

Cycling, cooking, coffee, electronic music.

References

Available upon request.

Madison, Wisconsin, November 11, 2010.