



# Ian Robert Kelley

ian.kelley@gmail.com

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## Personal Details & Contact Information

- *Removed from website version of resume, available upon request. More info at <http://www.kelley.tv/>*

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## Current Employment

**IT Analyst**, Oct 2003 – present

*Center for Computation and Technology, <http://www.cct.lsu.edu/>*

Louisiana State University, Baton Rouge, LA, USA

Lead Developer in the Collaborative Environments Group, which focuses on building Java portal solutions.

- Designed and developed standardized Java portal components using Servlets, JSP and Web Services.
- Led projects involving several developers through all phases of the Spiral software development life-cycle, emphasizing rapid prototyping to solicit feedback from the user community.
- Configured and maintained several portal servers, using Redhat Linux, MySQL, Apache, and Tomcat.
- Worked in an international collaborative group to develop generic multi-tier client/server applications for the research community and industry.
- Held high-level and technical talks with portal developers and potential developers at other departments on campus to isolate requirements and drive development.
- Demonstrated, at local events and international conferences, software projects developed by our group.
- Taught tutorials on creating custom portal solutions; guest lectured on XML technologies.
- Primary consultant on employment decisions in the Collaborative Environments Group, in addition to interviewing applicants for other research focus areas.
- Directly supervised and mentored several graduate students on a day to day basis, as well as acted as a technical advisor to new staff members.

Consultant to the Grid Research Group, which focuses on building Grid middleware and tools.

- Integrated the 1024 processor supercomputer at LSU into a Grid environment and set it up to be part of a large international Grid computing testbed.
- Deployed a Grid at CCT to use as a testbed for the development and deployment of Grid tools.
- Configured and setup a certificate authority (CA) to manage security infrastructure.
- Coordinated and oversaw the setup of a CCT led multi-institutional Grid testbed involving partners from many centers in the Southeast.
- Advised on many Grid research and deployment tasks.

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## Previous Positions

**Software Developer**, Dec 1999 – Feb 2004

*Max-Planck-Institute für Gravitationsphysik, <http://www.aei.mpg.de/>*

(Albert Einstein Institute), Golm, Germany

Lead Architect of Living Reviews, an online refereed scientific journal. <http://www.livingreviews.org/>

- Responsible for the technical development and maintenance of the Living Reviews website, software and supporting technical infrastructure.
- Investigated and recommended new technologies, such as XML, XSL-T, and Java Swing. Gave presentations and tutorials to affiliated groups about said technologies.
- Extended and modularized article conversion software using Java Swing and Perl. This facilitated the expansion of the Living Reviews software package to a new generic XML Publishing Toolkit and accommodated the use of the software by other journals.
- Collaborated with the MoWGLI Project to design and implement many new features, such as dynamic creation of web site content through use of XML, Schema and XSL style-sheets.
- Provided technical consultation on the development of a generic electronic journal processing toolkit which is based on the Living Reviews software and is currently under development by the Heinz Nixdorf Center for Information Management in the Max Planck Society (ZIM).

Research Programmer in the GridLab Project, which builds Grid middleware and tools. <http://www.gridlab.org/>

- Contributed to the design of a multi-tier Portlet framework/container that is implemented in Java and uses web technologies such as JSP and XML.
- Developed and designed application-specific Java components for the GridLab and ASC portals.
- Created a suite of Perl-based Grid tools and a testing framework which was used for prototyping and supporting demos at international conferences such as CCGrid 2003 and Supercomputing 2002.
- Worked extensively with end-users to pinpoint application requirements and to steer development of GridLab services and tools toward providing end-user functionality and usability.

Application Developer for Cactus, an open-source parallel computing framework. <http://www.cactuscode.org/>

- Enhanced and created new Cactus C/C++ modules to interact with our web-portal, enabling scientists to monitor and remotely manage their running simulations.
- Brought dynamic content to and streamlined the CactusCode website by writing many CGI programs and by implementing Server Side Includes (SSI).
- Actively analyzed, tracked and solved user submitted bug-reports using Gnats bug tracking system. Provided technical help to a world-wide community of Cactus users and developers.
- Worked independently and showed creativity by introducing new features to Cactus.
- Developed a system to aggregate Cactus module's documentation into a central and standardized form using templates, thereby greatly improving access to information for Cactus developers and users.
- Used a combination of Perl, C, shell scripting and GNU Make to develop new, and improve upon many existing, utility programs for the Cactus Framework.

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## Education

- 2008 (expected), PhD, Computer Science, Cardiff University, United Kingdom.
- 1999, B.A., Political Science, University of Washington, Seattle, USA.
- 1999, Certificate in Trans-Atlantic Studies, University of Bath, Bath, UK.
- 1995, A.A., North Seattle Community College, Seattle, USA.

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## Certifications

- Red Hat Certified Engineer (RHCE) for Redhat 8.0. Certificate Number: 808003664707814  
Awarded by Redhat Inc., the largest distributor of Linux in the world (2003).
- Certificate in MPI, OpenMP and Advanced Topics in Parallel Programming.  
Awarded for a course on advanced topics in parallel programming by HLRS, Stuttgart (2001).

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## Computer Skills

Programming Languages	Technologies / Methodologies	XML Technologies	Operating Systems
Java & JSP Perl JavaScript C/C++	J2EE Java Beans Design Patterns RDMS	Web Services (WSDL, SOAP) Scheme & DTD XSL, XSL-T, XPath DOM & SAX	Linux & Unix Mac OSX Windows XP & Vista
<b>Other:</b> Ant, Apache, CVS, Subversion, Globus, Idea, Java COG, Jira, JSR-168, Tomcat Latex/Bibtex, Mailman, Make, Maven, MHonarc, MPI, MyProxy, Peer-to-Peer, Samba			

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## Prizes and Awards

- HPC Challenge Awards (Supercomputing 2002) for *Most Geographically Distributed Applications* and *Most Heterogeneous Set of Platforms*.
- High-performance bandwidth challenge (Supercomputing 2002), Highest Performing Application.

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## Select Demonstrations, Posters, and Talks

- SuperComputing 2005, (Talk/Demo at LBL booth): *Monitoring Applications on the Grid*. I. Kelley and O. Wehrens. LSU CCT & Max Planck Institute for Gravitational Physics, Germany.
- SuperComputing 2005, (Talk/Demo at KISTI booth): *Portals- Cactus/Triana, the GAT/HPC Portal*. I. Kelley and A. Merzky. LSU CCT & Vrije University, Amsterdam.
- CCGRID 2003, (GridDemo 2003): *GridLab: Providing Application Tools for the Grid*. G. Allen, K. Davis, T. Goodale, I. Kelley, J. Novotny, K. Rasul, M. Russell, E. Seidel, O. Wehrens. Max Planck Institute for Gravitational Physics (AEI), Golm, Germany.
- NeSC Workshop on Applications and Testbeds on the Grid (Presentation, 2002): *GridTools: Customizable Command Line Tools for Using Grids*. G. Allen, I. Kelley. Max Planck Institute for Gravitational Physics (AEI), Golm, Germany.

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## Additional Training and Conferences

- XML Europe 2000, XML Europe 2001, GGF 5, HPDC 11, CCGrid 2002, Supercomputing 2002, GGF 8, HPDC 12, Supercomputing 2003, GGF 10, Supercomputing 2004, GGF 13, Supercomputing 2005, GGF 17, OGF 18, Supercomputing 2006

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## Select Papers

- I. Kelley, A. Harrison, and I. Taylor. *Towards Workflow-enabled Legacy Application Support Using Grid Portal Technology*, (To be published in a special issue of Future Generation Computer Systems), 2006.
- I. Kelley, O. Wehrens, M. Russell, J. Novotny. *The Cactus Portal*. (In proceedings of APAC 05: Advanced Computing, Grid Applications and eResearch), 2005.
- R. Bondarescu, G. Allen, G. Daues, I. Kelley, M. Russell, E. Seidel, J. Shalf, M. Tobias. *The Astrophysics Simulations Collaboratory Portal: a Framework for Effective Distributed Research*. (Future Generation Computer Systems), 2005.

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## References

- References are available upon request.