

Resume for Michael Still

Personal details

I am a resident of Canberra, Australia. I hold Australian citizenship. I can be contacted at mikal@stillhq.com or on +61 414 382 568.

Academic qualifications

I hold a Bachelor of Computer Engineering (BEng) from University of Canberra, with first class honors. I started this degree in 1996, and completed it in 2003, having studied part time for the majority of the degree. I am currently undertaking a part-time masters of philosophy at the Australian National University, looking into Distributed Denial of Service attack protections for SMTP servers.

Employment history

Senior Site Reliability Engineer, Google (January 2009 onwards)

Site Reliability Engineer, Google (January 2006 to January 2009)

Corporate Reliability Engineer, Google (November 2005 to January 2006)

During my tenure at Google I received six peer bonuses (cash awards that engineers can give out to people who assist them with getting their jobs done) and two manager bonuses – both for outstanding oncall performance. These awards are in addition to normal remuneration such as annual bonuses.

Mobile Search Reliability

Referee: Andy Warner (andy.warner@gmail.com)

- The first reliability engineer assigned to search products for mobile phones, including telco syndication deals, Android and iPhone search products. During my tenure this product set grew four fold, and was worth over a billion US dollars in revenue annually.
- Along with a coworker, built a globally distributed team of around 30 people across five offices to provide follow the sun oncall support for these services. Trained and mentored these engineers as required.
- Reduced client latency, as well as overall reliability significantly. This has a direct correlation to revenue for these products.
- Extensive interviewing experience.

External Network Monitoring (“20% Project”)

Referee: Andy Warner (andy.warner@gmail.com)

- Designed, built and deployed a system by which Google's network could be monitored from outside our network address space. This system handled distributed execution of network probes on around 1,000 non-Google machines spread around the world. This system was used by several internal services to measure the availability and latency of their systems for a user perspective.
- This system was developed in python, but is accessible to C++ and Java users via protocol buffers.

Cluster Turnup

Referee: Andy Warner (andy.warner@gmail.com)

- The first reliability engineer assigned to the full time automation of turning up new serving clusters. These clusters consist of thousands of machines running Google software such as chubby and GFS. I took beta-grade proof of concept automation software, and made it actually work in production. Negotiated with client teams the setup of their software.
- Scaled automated cluster software builds to the point that clusters took weeks to turn up, instead of months. This is a significant cost saving of millions of dollars per cluster (in the form of avoided depreciation) for the company.
- The automation software was developed in python, with swigged access to C++ libraries.

Tech lead for the team responsible for running Google's internal customer relationship management systems

Referee: Shoshana Abrass (shoshana.abrass@gmail.com)

- This included leading a team of engineers, as well as design review, oversight and mentoring of a globally distributed team as required. Final point of escalation for issues for this system with thousands of internal users and hundreds of thousands of

external users.

- Extensive interviewing experience, as well as representing Google at a variety of recruiting events (open houses, college recruiting, and conferences)
- Reduced email processing latency from hours to minutes, while serving significantly larger amounts of traffic than previously. This had a measurable impact of external user satisfaction.

Corporate log monitoring tool (“20% Project”)

- Google uses an in-house monitoring system, which assumes that you can recompile your code to include the hooks required to collect monitoring information. This isn't always possible – for example with third party software which couldn't be trivially recompiled. I wrote a log monitoring system which took standard text logs (such as syslog) and provided the data to our custom monitoring system. This software is still in active use at Google to this day, and monitors many mission critical systems.
- This system was developed in python.

Senior Software Engineer, TOWER Software Engineering Pty Ltd (August 2001 to November 2005)

- Member of the team responsible for the server side coding for a world leading Electronic Document Management and Records Management package, TRIM. TRIM was at the time deployed at over 1,000 sites world wide, with more than 750,000 licensed users.
- Implemented a wide range of technologies, including document content indexing, ODMA compliance, the first TRIM web service API, database services et cetera.
- Development in C++ and C#.

Team Leader, IPAustralia (November 1999 to August 2001)

- Manage a team of developers producing corporate imaging and storage solutions
- Lead C programmer for the organization
- Requirements analysis, system design and architecture and implementation for corporate systems
- Project management of the development portion of selected corporate projects
- Systems administration of a small number of development machines
- XML, HTML and SGML work, including coordinating the approach to these markup environments across the company

Older experience (details available on request)

- Systems Administrator / Developer, IPAustralia (March 1999 to November 1999)
- Network Manager, NATSEM, University of Canberra (April 1998 to March 1999)
- Department of Defense (July 1998, internship)
- Network Manager, Signadou campus, Australian Catholic University (February 1998 to June 1998 and August 1997 to November 1997)
- Network Support, Education and Management Faculties, University of Canberra (August 1997 - April 1998)
- Software Tester, Aspect Computing (February 1997 to September 1997)
- Explainer, Questacon (August 1995 to July 1998)

Personal software development projects

I have worked on a variety of personal projects, including: DocBook authoring automation tools; a tectonic movement visualization package developed for researchers at University of Canberra and MIT; an API for the GPG open source cryptography package; a raster graphics library; a set of PDF processing libraries (parsing and generation); a variety of image processing tools for PNG and TIFF images; a DNS server; and a video blog aggregator for MythTV. There are many other projects as well, all of which are listed at <http://www.stillhq.com/extracted/>.

I have commercial development experience of various levels with C, C++, Java, JavaScript, VisualBasic, ASP, ASP.NET, C#, sh, bash, perl and python. Most recent development has been in python and JavaScript.

Writing

I have previously been the author of the comp.text.pdf usenet FAQ, actively blog at <http://www.stillhq.com>, and am the author of two books from Apress about open source projects (ImageMagick and MythTV), as well as a variety of conference papers and articles.

I have had the following articles, papers and books published:

- *January 2011*: DDoS Protections for SMTP Servers (academic paper with Dr Eric McCreath, published in The International Journal of Computer Science and Security, volume 4)
- *April 2007*: Practical MythTV (Apress ISBN 1590597796, with Stewart Smith)
- *December 2005*: The Definitive Guide to ImageMagick (Apress ISBN 1590595904)
- *Experience prior to 2005 available on request.*

Professional bodies

I have held the following positions within a variety of professional bodies:

- *2011*: Chair of the Canberra bid to host linux.conf.au 2013
- *2011*: Chair of the linux.conf.au papers committee
- *2005, 2008, 2009, 2010*: Member of the linux.conf.au papers committee
- *2005 onwards*: Mirror project chairman, Linux Australia
- *2004 - 2005*: Core organizing team for linux.conf.au 2005, Linux Australia
- *2004 - 2005*: Ordinary committee member, Linux Australia
- *2003 - 2005*: Ordinary committee member, the Australian Unix Users Group
- *2002 - 2003*: Secretary, Canberra Chapter, the Australian Unix Users Group
- *1997 - 1998*: Chairman, Young Engineers Canberra, Institute of Engineers Australia

Presentations

I have given the following technical presentations:

- *July 2009*: Google internal presentation of network monitoring tools
- *June 2007*: Google internal presentation on reporting tools
- *April 2007*: O'Reilly MySQL Users Conference, Managing MySQL servers the slack way, how Google deploys MySQL servers
- *January 2007*: Linux.conf.au, Practical MythTV
- *January 2007*: Linux.conf.au, Writing a book in OpenOffice.org
- *October 2006*: Australian Unix User's Group Annual Conference, Linux on the Linksys NSLU2
- *October 2006*: Australian Unix User's Group Annual Conference, Managing servers the Slack way, how Google manages servers (this talk received Australian and international media coverage)
- *October 2006*: Sydney Linux User's Group, Linux on the Linksys NSLU2
- *September 2006*: Canberra Linux User's Group, Linux on the Linksys NSLU2
- *March 2006*: Portland Oregon Linux User's Group, ImageMagick
- *September 2005*: TRIM User's Forum, Keynote on the TRIM Web Service and Web 2.0 client
- *September 2005*: TRIM User's Forum IT Stream, The TRIM Web Service futures
- *Experience prior to 2005 available on request.*