

Patrick Galbraith

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Summary of Experience

30 years of technical experience ranging from electronics, software development, automation, database administration, system architecture, and sometimes firefighting. 23 years of rapid learning, embracing, and leveraging Linux and other open source projects to solve real problems and create value.

Skills

- Cloud: Kubernetes, Helm, Xen hypervisor, AWS, CoreOS, Terraform, OpenStack
- Databases: MySQL (Oracle ACE), Postgresql, Oracle, MongoDB, Couchbase, etcd, ElasticSearch
- Languages: Go, Python, C/C++, Javascript, PHP, Perl
- Devops: Ansible, Chef, Vagrant, Fleet
- Networking: Switches, routers, PfSense, firewalling
- Monitoring/Logging: ELKstack, Nagios/Icinga
- Electronics, Wireless Broadband (WISP), Alvarion, Motorola
- Local Government (previous town selectman)

Professional History

Principal Engineer, Hewlett Packard Enterprise, November 2011 - Present

Hewlett Packard Enterprise New Cloud Stack, HP Cloud, HP Advanced Technology Group, Geographically Distributed

- Lead engineer on various R&D technology investigations a member of the Advanced Technology Group eventually leading to the prototyping and early product concepts of the HPE New Stack project.
- Architect and developer of New Stack Configuration Manager service running in Kubernetes
- Contributed open-sourced work upstream to Ansible, Kubernetes, and Helm projects
- Technical Lead and developer of DNSaaS (Designate) for HP's Openstack-based cloud
- Technical Lead of Database Information Systems for HP Cloud Responsible for clustered MySQL backend servers and OpenStack data availability requirements
- Developed a cloud-based database scaling architecture proposal for Samsung Appstore.

Senior Systems and Database Administrator, Blue Gecko, October 2010 - October 2011

- Remote DBA, development, and systems architectural expertise to various clients for various application components and backing databases (MySQL and NoSQL).
- Custom development of storage engines and user-defined functions
- Development of database scale out plans using sharding and replication
- [Oracle ACE award](#)

Senior Software Developer, NorthScale Inc. (Now Couchbase), July 2009 - September 2010

First responder and institutional communications and next generation 911 systems.

- R&D, prototyping, and early product development during start-up phase of the Membase Database, now known as Couchbase.
- Development of Linux and Windows product build systems

Principal Software Engineer, Lycos Inc., October 2008 to July 2009

- Development of SAS for popular PHP applications (Drupal, Joomla, Mediawiki, etc) and MySQL into the existing Tripod infrastructure
- Oracle to MySQL migration of Tripod.com including modifications to Java-based applications and moving stored-procedure logic to application code

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Senior Software Developer and Database Administrator - Grazer Inc., January 2007 - October 2008

- Developed Feed Processing web applications
- Implemented both schema and database scale out architecture, and ensured 24/7 availability of backend replicated database systems
- Implemented overall systems monitoring

Senior Systems Engineer, MySQL Inc., January 2004 - January 2007

The world's most popular Open Source Database - participated as a member of a globally-distributed team

- Developed storage engines
- Developed Partitioning features
- Developed client drivers
- Developed parser language additions
- Built automation of MySQL binary builds for Linux and MS Windows

Senior Software Developer, [Open Source Technology Group \(OSTG\)](#), August 1999 - September 2002

- Technical manager, developer, and operations of [Slashdot.org](#)
- Optimized Slashdot database and source code, server hardware, and server OS.
- Developed relationship with MySQL AB to sponsor development of initial MySQL replication features
- Added caching layer and troll filters to Slashdot codebase to handle burgeoning traffic
- Developed Linux Foundries and Linux.com website

Senior Software Developer, DBA, Application Team Lead, [Cobalt Group](#), March 1998 - July 1999

- Developed database-driven web applications for automotive manufacturers and dealers.
- Performed DBA tasks such as database schema design, implementing 24/7 database monitoring
- Migrated Application backend database to Oracle

Other

- Selectman, [Town of Sharon, NH](#), March 2011 - October 2013
- Principal, part-owner, Radius North Communications, January 2007 - June 2010
- Fire Control Technician, FC3, USS Leahy (CG-16), United States Navy, August 1986 - August 1992, Desert Storm

Consulting and Before 1999

- Devops, DBA, architectural/development consulting, Health Staffing Innovations, 5/15 to current
- Packt Publishing reviewer of video training "MySQL 8 Recipes"
- Senior Software Developer, Classmates Online contractor, 2/03 to 8/03
- Senior Systems Engineer, T-Mobile contractor, 10/02 to 2/03
- Systems administrator, developer, Horvitz Newspapers 09/96-03/98 employee, 3/98-11/98, consultant
- Software developer, systems administrator, Newscope Technology 1/96 to 9/96
- Test Engineer, McCaw Cellular/AT&T Wireless (contract), 9/95 - 1/96
- Production Electronics Technician, Siemens Ultrasound Group (contract), 1/93 - 6/95
- X-Ray Electronics Technician, Pacific Spectrum Technologies - X-Ray NDT Field Service Technician, 8/92 - 1/93

Publications and other projects

- "[Developing Web Applications with Apache, MySQL, memcached, and Perl](#)" (English, Mandarin), Wiley, ISBN: 978-0-470-41464-4
- "[Expert PHP and MySQL](#)", Wiley, ISBN: 978-0-470-56312-0
- Galera MySQL Cluster on Kubernetes contribution - <https://github.com/kubernetes/kubernetes/tree/master/examples/storage/mysql-galera>
- Oracle ACE award https://apex.oracle.com/pls/otn/f?p=19297:4:896909223092578::NO:4:P4_ID:3300

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- Public maintainer/developer of [DBD::mysql, Perl database driver for the MySQL RDBMS](#), 2004 - current
- Github - <https://github.com/CaptTofu?tab=repositories>
- Speaking engagements and tutorials at OSCON, MySQL Users Conference, Percona Live, OpenStack Summer, CoreOS Fest, AnsibleFest, and Cloud Computing Expo 2004-current. Details: <http://patg.net/speaking.html>

Education

BSCS - In progress, Bellevue College (1992-current)

US Navy Fire Control A and C schools (1986-1988)

Intensive technical training focused on general Electronics, Computer (digital and analogue), and waveguide theory and microwave concepts to specific fire control systems