

DR. RICHARD L. BYRD

INFORMATION TECHNOLOGY PROFESSIONAL
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A quick précis of my experience and skills include:

- **DBA expert in MySQL and MySQL Enterprise environments** (versions 3.23 through 6.0), including clustering and complex master/master-master/slave replication schemes, as well as variants (Percona MySQL, Percona XtraDB Cluster, MariaDB, Galera, TokuTek products, etc.)
 - **Specific deep knowledge in the use of MySQL** in standalone, master/slave, master/master and clustered environments (see below for a list)
 - **Database architecture and design** in a variety of industries, systems, and environments
 - Experience in designing, creating and maintaining both **OLAP** and **OLTP** systems. Extensive experience in **ETL, EDI, XML, and other data transfer mechanisms**.
 - Daily use of the **Percona Toolset** for backup, automation, and other database tasks.
 - Experience in **caching, sharding, and partitioning** of data for ease of access, high availability, and high speed.
 - Usage of **Amazon Web Services** products as a virtual datacenter, utilizing **EC2, S3, RDS, SNS**, and other resources both as server farms, database environments, and other uses. Well-versed in all aspects of EC2 in particular in creating a solid, resilient multi-zoned architecture.
 - **Deep systems management and administration skills with Unix/Linux/BSD/ Solaris, Windows, and Macintosh systems**, with a concentration in LAMP. Years of background as an administrator with many distributions of Linux, including RedHat, CentOS, Fedora, SuSE, Debian, Mandriva, Gentoo, Slackware, and others. Daily usage of standard monitoring tools such as **Nagios, Cacti, Graphite, MySQL Enterprise Monitor, MonYOG**, and others. Usage of various tools to automate deployments.
 - **Expert level development skills in PHP, PERL, and Javascript**, as well as various other languages (Ruby, Python, etc.) for both UI, systems, web, and automation applications for 20 years; extensive use of **source control** both as a user and an administrator of SVN
 - **Extensive experience in modifying, creating plugins and modules, enhancing, and coding for industry standard content management systems and social platforms**, such as **WordPress, Drupal, Joomla/Mambo, Drupal, BuddyPress** and many others.
 - **Almost three decades of practical, hands-on IT experience** in a variety of roles
 - **Systems engineering and design** in copper, fiber, and wireless networks
 - **Datacenter design, implementation and maintenance** experience
 - **Over 30 years of intranet, extranet, and web application design, creation, and implementation** experience
 - **Deep familiarity with document management applications, guidelines, and implementation, including Sarbanes-Oxley regulations**
 - **Consulting work with healthcare providers and ancillary organizations**
 - **A multifaceted background in leading and managing IT development teams and divisions**
 - **Personnel management and recruitment, project budgeting and estimating**
 - **Project management** background, with projects of all sizes and scopes
 - **IT auditing** methods and practices
 - **Full P&L responsibility**, at the department, division, and company-wide levels
 - **Background and experience with ITIL concepts and guidelines**
 - **Process architecture and design** experience
 - **Ability to give clear, concise, and succinct presentations** to corporate and board-level executives in an lucid manner
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I've been designing and creating complicated websites since there was a "web," having been noted by *Wired* magazine as having brought online one of the first 500 websites on the planet. Before that, I was involved in academic computing *gopher* sites, among other things—and most people don't even remember what a "gopher" was anymore. Additionally, in the late 1990s, I created and implemented one of the first on-line gradebook/Student Information Systems—named *Ivory Tower*—for the secondary school segment of the educational market. At the time, it was groundbreaking enough to be covered by the Associated Press and other worldwide news agencies, and such web-based applications are commonplace now. (CNN/AP article facsimiles available upon request)

Résumé of Richard L. Byrd

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Technology Experience

May 2009 - Current	Remote MySQL DBA/Architect	Houston, TX, Portland OR
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MySQL DBA and architect on dozens of high-profile websites, creating and managing both **OLTP** and **OLAP** database instances and clusters. Daily usage of **Amazon Web Services** products as both a **database platform** and as a **system administrator**. Served as **primary MySQL database administrator** for the **IBM Lotus Live/iNotes** project during an integration phase with a Hong Kong based acquisition. Successfully completed scores of major projects, from design, through estimate and development phases, to QA and signoff.

Working as a private consultant, have engaged in a number of projects, including having served as an interim **director of operations** for a Houston web conferencing startup, **database architect** for SlimWare Utilities (slimwareutilities.com), **data manager** and **operations manager** for TicketTurtle.com, several **web application and SaaS projects**, and other web-based technologies.

Utilization of MySQL both on **standard hardware** and a number of **VM environments**. Daily use of **MySQL**, **Percona MySQL** and **XtraDB Cluster**, **MariaDB** and **MariaDB Cluster**, **MySQL CGE (cluster)**, **Percona Tools**, **PERL**, **PHP**, and **Unix systems administration skills** as well as advanced MySQL techniques such as **caching**, **sharding**, and **partitioning of data** for ease of access, high availability, and high speed.

August 2007 - April 2009	Internet REIT, Inc.	Houston, TX
Senior Data Manager		

Designed, managed, and administered all data structures and processes for the company in a complex, multi-server, fully redundant environment using various system level tools under **MySQL Enterprise 5.x and 6.x (beta)**. Coded and maintained all **stored procedures, functions, and other back-end processes** for data maintenance and manipulation.

Designed, coded and maintained the company trouble-ticket system and wiki as well as multiple web-based applications. Conducted in-house **IT security** and **Sarbanes-Oxley** audits. **Led development teams** in software design and implementation using **LAMP** and **BAMP** platforms. **Advised executive management** regarding hires, software releases, and process design. Coded **PERL** and **PHP** processes for **Unix** and **web-based uses**. Direct report to: **CIO**.

April 2006 - June 2007	Technical Operations, Inc.	Houston, TX
Founder-CEO/Senior Engineer		

Led diverse technology teams in complex, multiphased projects and management, as well as serving as **startup CEO** of the company. Created and led project teams over all 7 layers of the **OSI model**, from cabling through network, security, and designed all business processes, best practices documents, project management flow and other mission critical policies.

Special emphasis on clients needing **Sarbanes-Oxley**, **HIPAA**, and **IT security audits**, creating **documents, processes, and audit strategies** for these clients, then **leading audit teams**. Designed and built complex web-based applications, and led development teams in the same, for a multitude of commercial clients using **PHP**, **PERL**, using **Apache2**, **MySQL**, **Postgres** and related technologies.

August 2004 - June 2006 Director of Technical Operations	Simdesk Technologies, Inc.	Houston, TX
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Oversight for all technology initiatives for the company. Managed a division of the company with a multi-million dollar budget, designed and oversaw implementation of complex cluster and storage technologies to support the company's 2 million user base. Completely revamped the technology division's best practices, development methodologies, and other mission critical policies. Managed, configured, and administered the multi-platform network of Linux, Solaris, Windows 2000/Windows 2000 Advanced Server machines in both in LAN and WAN settings; coordinated and executed code promotions in an *n*-tiered environment.

Led development teams in software design and implementation using LAMP and BAMP platforms. Formed and led the initiative to execute bi-yearly IT security and Sarbanes-Oxley audits. Performed upkeep on all file servers, IIS, Microsoft SQL servers, mail servers, and other machines, both administrative and customer-accessible.

Daily usage of MySQL, PERL, ASP, ODBC/JDBC and other systems and methodologies. Direct report to: CEO.

July 2002 - February 2004 Chief Technology Officer	Steadfast Marketing Services	Houston, TX
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Responsible for all technology initiatives, purchases, and leadership within the company. Built technology infrastructure from the ground up, including all servers, server clusters, redundant internet connectivity, from physical layer design through desktop applications. Led development teams in software design and implementation using LAMP and BAMP platforms. Managed all personnel within the information technology departments, and designed all intranet applications from database schemas through functional, technical, development, and QA specifications. Daily use of Apache2, MySQL, Microsoft SQL Server, PHP, C#, ASP, and PERL. Direct report to: CEO

August 2001 - September 2002 Senior Business Analyst	The Kirby Corporation	Houston, TX
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Lead and associate developer, primarily concentrating within the PowerBuilder, Microsoft SQL Server, and PL/SQL environments. Planned, led, and distributed complex, multi-nodal applications using PERL, with Oracle 8i and 11i as database sources. Researched, planned, installed, configured and administered the MKS Source Integrity source code control system and Apache based sites. Unix (Linux and Solaris) administrative duties. Direct report to: Director of Development.

May 2000 - July 2001 Data and Design Process Architect	Ourhouse.com	Evanston, IL
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Responsible for the data model and ERD, site-wide, both frontend and backend. Made model changes as well as Broadvision metadata edits. Cleaned up the large data model, tuning extensively, as well as leading a large-scale integration of a company purchased by Ourhouse.com into our existing data structure. Managed midsize and large development projects, requiring interaction with business, functional, and technologic areas of the company.

Installed and administered company Citrix server. Redesigned the creative flow, disseminating the design process to all concerned, including the functional, technical, development, and quality assurance stages and relevant personnel. Advised upper management on security and software upgrades and purchases. Oracle 8i DBA trained and certified.

Lead developer, manager, and technical resource on a variety of projects, including multiple full implementations of the Verity search engine, as well as Oracle's Intermedia product and other search

engines, EDI datafeeds, database management, site security, and component design using Broadvision. Wrote both functional and technical specifications, as well as unit test plans, and managed teams of developers. Daily use of Solaris, iPlanet, Apache, IIS, PERL, server-side jsp, C, and MySQL. Direct report to: CIO.

July 1999 - May 2000

Robert H. Lurie Comprehensive Cancer
Center of Northwestern University

Chicago, IL

Technical Software Engineer

Software programmer, hardware specialist, and webmaster. In addition to performing programming for various applications for the Robert H. Lurie Comprehensive Cancer Center, maintained the main Cancer Center web site, a repository of information for both cancer patients and researchers, as well as managing the Cancer Center LAN, various specialized laboratory computers and associated hardware, and online database management duties.

Extensive experience in Access/Oracle online databases, IIS, MySQL, Windows NT, Linux, and Cold Fusion environments, as well as C, PERL, HTML, technical writing, and website creation. Led HIPAA audit teams of medical record storage and access. Managed small, midsize, and large-scale projects for the Cancer Center. Direct report to: Director of Informatics.

July 1996 - June 1999

Evansville Day School

Evansville, IN

Technology Coordinator and Head of Upper School

Responsible for all technology needs for the School. Designed, installed, and maintained the campus-wide network, including Macintosh, PC, and Unix machines, both in LAN and WAN settings. Administrative duties included supervising interns, purchasing, and equipment upkeep. Taught six courses in computer science (intermediate to advanced) as well as music history, music theory, music composition, and AP music theory.

Designed, programmed and implemented both the secure online internet student information system (first secondary school in the nation to have such a service) and the online purchasing system, all web-based using PERL and MySQL and the Linux operating system. Wrote technical documents and helpdesk applications. Direct report to: Headmaster.

August 1991 - April 1996

Univ. of Alabama School of Music

Tuscaloosa, AL

Network Administrator

Responsibilities included installing and managing the local area network of personal computers in the School of Music. Designed, bid, and implemented our department-wide network and connected this network to internet. Built and administered one of the first 500 WWW servers on the planet, as verified by Wired magazine. Maintained all facets of the network, including IBM, Macintosh, and Unix machines.

Designed and programmed custom software, encompassing administrative programs, site security, CAI, Citrix server, and internet applications using such diverse development tools as PERL, C, MySQL, PostgreSQL, and ASP. Performed upkeep on all file servers, dial-in internet connections, student accounts, all World Wide Web sites for the School of Music, and electronic music facilities. Extensive experience with WinXX, Novell Netware, Linux, and Windows NT, both in LAN and WAN settings. Direct report to: Director of the School of Music.

Other technological highlights and experience

With 20+ years of experience at the director and managerial level, as well as a developer, administrator, and project manager, both in corporate and educational settings, I have accumulated skills in numerous aspects of management, human resources, systems and site design, security, a variety of operating systems. I've designed and executed projects from academic computing through sophisticated commerce applications. PHP, PERL, Cold Fusion, Windows, Unix, MySQL, Apache, and Oracle rank among my specialties. Novell, Oracle, and MS certifications. Expert in writing and evaluating functional and technical specs, as well as excellent, well-honed writing skills.

Recommendations and Endorsements

A full list of recommendations and endorsements may be found at <http://www.linkedin.com/in/rlbyrd>.

“Richard is an outstanding senior information technology director with clear vision, and a very impressive and effective management style. He understands the principles of datacenter management, and takes his responsibilities to customer data very seriously. He is also a delight to work with, and has an enjoyable sense of humor.”

Eric Eaton, Manager, CTO, Behavioral Recognition Systems

“While I was Sr. DBA at SimDesk Richard's team provided support for my databases servers. He always provided stellar support. Specifically he had the ability to understand my requirements, aid in design and architecture of systems, accurately estimate the time it would take to implement, and execute as agreed. 400 characters is not enough to express how valuable Richard was to my team.”

Joe Moyle, Senior DBA, Paymetric

“I think the question begging more to be asked would be, “Why would you NOT hire this man?” Not only is his knowledge vast and frighteningly deep, his passion to continue that knowledge further accents his character. All this aside, Richard is a great guy to work with, with one hell of a sense of humor.”

Matt Freitag, Senior UNIX Administrator, Internet REIT

“We hired only the best and the brightest. Richard certainly fits into that category! He is one of the most caring, knowledgeable managers I have known. His methodical approach to a project is a work of art! I highly recommend him without hesitation to any employer.”

Pan Beatty, Director Human Resources, SimDesk Technologies

“Richard has the critical and focused thinking skills that ask the important questions, probing for real answers, not just “yes” answers. His past work and life experiences in a variety of fields make him well suited to the roles he plays in growing companies as well as leading his people. I have enjoyed working with Richard, his wry wit will sorely be missed. I hope to work with him again soon.”

Gary McNeel, Co-Founder, LightHouse Data Services

“One of the most talented leaders I've ever met in thought, action and speech. Excellent skillset and highly respected among his peers in several fields. Would welcome an opportunity to work with him again in the future.”

Mike Bitoun, Executive Administrative Director, Behavioral Recognition Systems

Specific MySQL Experience

- Deep usage of MySQL and all its variants as a DBMS from version 3.23 forward
 - MySQL installation utilizing source compilation, RPMs, and ports (BSD); source, yum, apt-get, and binary installations (CentOS, RedHat, Gentoo, Fedora, etc.)
 - MySQL optimization and tuning at source code level, including enhanced patching
 - Experience in advanced MySQL configuration
 - Daily work in database security, query optimization, full-text search indexing, de-normalization (where appropriate)
 - Development and optimization of physical and logical design of MySQL database systems
 - Database monitoring (usage and health) utilizing a variety of tools, including the MySQL Enterprise packages
 - Daily usage of a variety of MySQL tools, including MySQL AB's own, as well as third-party packages
 - Creating and execution of daily/weekly/monthly database backup/restore processes
 - Design and implementation of complex database structures with optimal indexing and table design
 - Frequent design and implementation of rollup tables to expedite web apps/reporting/database access
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- Deep experience in the design and implementation of complex replication schemes, including master-master replication (multiple data entry points)
- Design, creation, and implementation of n-tiered development environments using 100+ database servers
- Development of application-specific fault-tolerant distributed database mechanisms
- Experienced in installing, configuring, and maintaining MySQL Enterprise clustering and HA systems
- Expert in utilizing crontabs to execute repetitive tasks in a clean, monitored, and repeatable fashion
- Expert in utilizing system-level utilities to create and summarize database activity for daily/weekly reporting both in detail and at the summarized level
- Heavy background in shell scripting (bash, csh, awk, sed, PERL, etc.)
- Daily usage and experience with large data sets (100M rows+)
- Data warehouse (OLAP) background

Other DBMS occupational usage:

Oracle 8i (several certifications), MSSQL 2000, Postgres, MSAccess

Programming languages:

Compiled languages -- C, C++

Scripting languages -- *Fluent in PERL, PHP, Javascript, sed, awk, bison; Proficient in ASP, VBScript, AJAX*

Other experience in COBOL, C#, FORTRAN

Have designed and built **hundreds** of websites and web application utilizing a LAMP, BAMP, or WAMP architecture. Portfolio available, as well as numerous references.

Systems Administration

Operating system expertise:

Have served as senior systems administrator in various environments over the last 20 years with 50+ servers running Windows NT, 2000, and XP; Linux and derivatives (RHES, RHAS, CentOS, Slackware, several others), FreeBSD/NetBSD, AIX 2.x and 3.x; Solaris; UNICOS (Cray XMP and YMP installations)

Expert in installing, compiling, tuning, configuring and maintaining large Apache, IIS, Tomcat environments

Education

University of Alabama Tuscaloosa, AL
Degree: DMA. Major: Music Composition/Advanced Technology and Networking in Education

University of Alabama Tuscaloosa, AL
Degree: Master's. Major: Music Composition/Technological Applications

University of South Alabama Mobile, AL
Degree: Bachelor's. Major: Music Education

University of South Alabama Mobile, AL
Degree: Bachelor's. Major: Music Composition

References

Available upon request.
