

Stephen Moore

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PROFESSIONAL SUMMARY

I am an experienced software professional with a background in UNIX and Microsoft development that transitioned to web development with open source technologies. I have a solid foundation of expert-level skills, deep knowledge and extensive project experience in

- Web, distributed and desktop development
- Object-oriented analysis & design
- Analytics, reporting, statistics & machine learning
- Database design, development and administration
- SDLC methods, including Agile/SCRUM

Details of tools, project experience, education and certifications follow. The many, many online courses and certifications I have completed are detailed at my portfolio web sites. I maintain 4 portfolio web sites developed with open source technologies at

- zend.moore-database.com (Zend Framework)
- mobile.moore-database.com (jQuery Mobile, CakePHP)
- cms.moore-database.com (Ruby on Rails)
- node.moore-database.com (Node.js, AngularJS)

TOOLS

Web Development Tools & Technologies

PHP / Zend Framework / CakePHP
Smarty
Ruby on Rails
Node.js
HTML5 / CSS3
SASS / Compass
JavaScript / AJAX
AngularJS
Bootstrap
Google Charts, amCharts, plotly.js
jQuery / jQuery UI / jQuery Mobile
CoffeeScript, UglifyJS

XML / XSLT

Eclipse, Zend Studio, Aptana Studio, PHPStorm
Sublime Text 2 / vim
MS Visual Studio / C#

Version Control

Git / GitHub / SourceTree
SVN / Tortoise

Platforms

Ubuntu Linux / CentOS / RHEL
Apache / Nginx / Zend Server CE
Amazon EC2 / S3 / RDS
Heroku

Database Tools & Technologies

SQL Server 4.2 - 2008 R2
SQL Server Management Studio / Profiler / SSIS
Redgate SQL Compare
Redgate SQL Source Control
Redgate MySQL Compare
Sybase Adaptive Server Enterprise 10 / 11.9 / 12.5
Oracle
MySQL 5.x

phpMyAdmin / MySQL Workbench
Redis
MongoDB
AWS Aurora 5.6

Analytics & Reporting

Python / PyCharm
R / RStudio
Excel
Octave

PROJECT EXPERIENCE

Capstone Digital - Publishing, Educational Software

September 2013 – Present

- Data architecture and web development for large educational sites focused on reading and literacy.
- Data architecture and design, administration, and performance tuning of very large MySQL databases. Databases deployed on-premises and in the Amazon cloud on RDS instances running MySQL 5.5/5.6 and Aurora 5.6.
- Design of schemas, tables, indexes, views, keys, foreign keys and partitions.
- Implementation of a scale-out strategy using multiple read replicas and read-write splitting. Replication tuning using multiple threads and schema splitting.
- Monitoring of AWS RDS MySQL instances using the AWS console, MySQL Workbench, and MySQL slow logs. Query tuning using EXPLAIN and deep knowledge of query optimization and indexes.
- Architecture, design and implementation of a reporting system and 70+ reports for myON. Reporting system uses MySQL stored procedures, a PHP / JSON API stack, memcache and a front end implemented with Angular.js, Google Charts and plotly.js.
- Web application development for the PebbleGo, and PebbleGo Next online research databases, using PHP, MySQL, HTML / CSS, and JavaScript / jQuery.
- Data analysis with R and RStudio. Reports utilizing dplyr, ggplot2, tidyr, psych, rmysql and other packages.
- Python database extracts and scripting using the pandas, numpy, scipy, scikit-learn, matplotlib, pymysql, pysftp, sys, os and other packages. Integration of AWS and Nagios using Python and the boto package.
- Managing remote Linux instances (EC2 and on-premises) using SSH and screen.
- Testing and evaluation of Amazon Aurora and Redshift.
- Worked on the following Capstone sites: myon.com, pebblego.com, pebblegonext.com, online.raintree.co.uk, acorngrow.co.uk, mycapstonelibrary.com.
- Development tools include Zend Studio, PHPStorm, PyCharm / PyLint / IPython Notebook, RStudio, Sublime Text, Composer, JSHint and MySQL Workbench. Most development done in VirtualBox VM's running Ubuntu Linux.
- Version control using git, GitHub and Sourcetree.

TDS HMS / VISI - Colocation, Managed Services, Hosted Services, Cloud Services

February 2011 - September 2013

- Analysis, design, coding and testing of intranet and customer portal applications using PHP, Zend Framework, HTML/CSS/JavaScript/jQuery, Smarty templates, SQL Server T-SQL (2005 and 2008 R2), and MySQL. PHP applications were deployed on both Windows/IIS and Linux/Apache servers.
- Developed a variety of applications related to data center operations, including service desk, monitoring, configuration management, and network administration applications. Integration with third-party services.
- Development tools used include Zend Studio, Zend Server CE, SSMS, SQL Profiler, Firebug, vim, PuTTY, SVN/Tortoise.
- SQL Server database administration, data design, performance/index tuning, and security. Replication setup and administration. Setup of linked servers and synonyms.
- Upgrade of production database server from SQL Server 2005 to a SQL Server 2008 R2 High-Availability Cluster.
- Programming of SQL Server stored procedures, views, triggers, and functions.
- Diff'ing database schemas using Redgate SQL Compare. Deployment of schema changes to production during releases. Versioning of database schemas using Redgate SQL Source Control.
- Conversion of legacy MySQL data to SQL Server after a merger.
- Passed 2 SQL Server 2008 R2 certification exams and obtained MCITP designation.

Hollander, a Solera Company - Point-of-Sale, Accounting and Inventory Management Software

May 2006 – April 2010

- Development of forms, OCX's, business and data access component DLL's for Powerlink, a distributed/web-based salvage yard management system, deployed at 1400+ locations across North America. Development tools included: C#, VB 6.0 / COM / COM+, ADO / ADO.NET, .NET Framework 3.5, Visual SourceSafe and the Enterprise Library application blocks.
- Development of Transact-SQL stored procedures, functions and triggers. Design, administration, performance tuning and remote support of SQL Server 2000 / MSDE / 2005 / Express databases, using Enterprise Manager, Query Analyzer, Profiler, Management Studio. Remote application support and database administration.
- Development of ETL processes for the conversion of competitors' data and merging of application databases using a variety of tools, including Pervasive Data Integrator and SQL stored procedures.
- Analysis and design; authoring of UI designs, entity-relationship diagrams, class diagrams, data flow and process flow diagrams, using Word and Visio.

Ameriprise - Compliance Department

November 2003 – February 2006, May 2002 – June 2002

- Analysis, design, implementation, testing and deployment of an n-tier workflow application for processing Errors & Omissions insurance claims. This application utilized VB 6.0 / COM, ADO, the Excel 9.0 Object Library, Crystal Reports 8.5, UNIX middle-tier components and Sybase ASE 11.9 / 12.5 Transact-SQL stored procedures and triggers. Analysis and design activities included: preparation of data and process flow diagrams; data design using Visio and ERwin; preparation of technical architecture documents and an implementation plan; creation of application UI and report prototypes.
- Analysis, design, implementation, testing and deployment of ETL applications for pulling insurance claims-related data from six different source systems. These applications utilized VB 6.0 / COM, ADO, the Excel 9.0 Object Library, UNIX middle-tier components and Sybase ASE 12.5 Transact-SQL stored procedures and triggers. This work included the design of Sybase staging tables.
- Migration of production and testing database environments from Sybase ASE version 11.9 to version 12.5. This work included: modifications to multiple front end applications to facilitate a seamless

cutover to the new environments; application testing; preparation of migration planning documents; and application checkouts after cutover.

- Development of new and enhanced forms, business and data access components (including several component DLL's), and stored procedures for the Compliance Department's case management system using VB 6.0 / COM, ADO, UNIX middle-tier components, mainframe procedures and Sybase ASE 11.9 / 12.5 Transact-SQL stored procedures and triggers.
- Complete rework of Compliance reporting application components and upgrade from Crystal Reports version 6.0 to version 8.5. Data design of new Sybase tables to support enhancements to the reporting application.
- Development and testing of Wise installation scripts.
- Development of MS Access 2002 applications for the General Counsel's Office and the Money Laundering Prevention unit.
- Project Architect and Systems Analyst on a multi-year project to replace the Compliance Department's legacy case management system with a packaged solution. Made significant contributions to project vision-scope and requirements documents, especially in the areas of conceptual design, system architecture, as-is system documentation and data design, volumetrics, reporting, and interfaces with external systems. Conducted research into Case Management, Matter Management and BPM products built on the J2EE and .NET platforms. Conducted approximately 12 webinars with vendors of these products. Assisted in preparation of RFP's and technical RFI's and scored responses. Participated in 8 day-long demonstrations of Case Management, Matter Management and BPM / Workflow products. Carried out acceptance testing of the J2EE-compliant packaged solution chosen by the business (Mitrastech TeamConnect).

Carlson Companies - Seven Seas Cruises

August 2003 – October 2003

- Analysis, design, implementation, testing and deployment of a table-driven reporting system with dynamically drawn and dynamically populated prompts for report parameters; this system was constructed using VB 6.0 forms and classes, ADO, and the Crystal Reports 8.5 ActiveX Designer Runtime library. The front end of the system was deployed on a Citrix Winframe server and accessed via a Citrix ICA client.
- Design, implementation, testing and deployment of the reporting system back end, which consisted of Oracle tables, constraints, triggers and views, using Quest's SQL Navigator and SQL Plus and TOAD. Setup and maintenance of development, testing and production schemas.
- Design, implementation and testing of numerous and oftentimes complex Crystal Reports templates and Oracle views for use in the reporting system.
- Training and mentoring of permanent staff and contractors in the use of Crystal Reports.

University of Minnesota - Facilities Management Information Services, Provost of Arts and Sciences Office

July 2003, May 1997 – August 1997

- Development of complex construction project budget variance reports for Facilities Management executives, utilizing Crystal Reports 8.5, Oracle views, and TOAD.
- Implementation of the data services components of a Web-based Decision Support System targeted at high-level University administrators, using Visual Basic 5.0, Access 97 and SQL Server 6.5 Transact SQL.
- SQL Server 6.5 database administration.
- Migration of data from the University's Sybase System 10/UNIX data warehouse to SQL Server 6.5/NT Server 4.0 data marts.
- In-depth training in the University's chart of accounts, business papers, and financial systems.

- Troubleshooting and implementation of a multi-server backup regime using Seagate Backup Exec and HP autoloader tape drives.

Toro - Service Parts Division

October 2002 – May 2003

- Analysis and design activities in preparation for the development of a decision-support / workflow application for service parts inventory management; this work included data and process flow diagramming, data design, preparation of Technical Architecture and requirements documents, and application UI prototyping.
- Analysis, design, implementation, testing and deployment of ETL processes which refresh the Service Parts DSS from SAP and other data sources; this work included the design of SQL Server staging and DSS database tables, the implementation of numerous stored procedures and triggers, reconfiguration of the database server to allow for the use of ftp and BULK INSERT and consulting on the design of Vitria processes.
- Implementation, testing and deployment of a decision-support / workflow desktop application; this work was accomplished using VB 6.0, ADO 2.5, the Excel 8.0 Object Library and Transact-SQL stored procedures and triggers running on SQL Server 2000.
- Assisted in the configuration of a new SQL Server 2000 server; transferred 6 databases to the new server.
- Consulted on a change from SQL Server authentication to Windows authentication / integrated security.
- Design, implementation and testing of scheduled SQL Server jobs, developed using Transact-SQL stored procedures and DTS packages.
- Design, implementation and testing of a service parts pricing model utilizing Transact-SQL stored procedures, MS Access / DAO 3.5, an Excel 97 template, and the Excel 8.0 object model.
- Design, implementation and testing of several MS Access applications for the maintenance of application lookup tables.
- This project was awarded Toro's corporate Circle of Excellence Eagle Award for quality.

Stanton Group - Employee Benefits Administration Firm

March 2001 – September 2001

- Development of forms, middle-tier business and data access components and stored procedures for COBRA and Flexible Spending Account line-of-business applications using VB 6.0, MTS/COM+, ADO and SQL Server 7.0 Transact-SQL stored procedures and triggers.
- Development of forms, components, report templates and stored procedures for a reporting system using VB 6.0, Crystal Reports 8.0/8.5 and SQL Server 7.0 Transact-SQL. Upgrade of reporting system components to Crystal Reports 8.5.
- Development of scheduled batch processes using SQL Server 7.0 Transact-SQL, SQL Agent, SQL Mail, and Data Transformation Services (DTS) packages.
- Development of applications for the migration of COBRA and Flexible Spending Account data from a legacy VAX system to SQL Server, using VB 6.0, ADO, Crystal Reports 8.5, SQL Server bulk copy capabilities, and SQL Server 7.0 Transact-SQL stored procedures.
- SQL Server 7.0 Database Administration.

Rainier Technology - IT Consulting Firm

March 2000 – February 2001

- Preparation of vision/scope documents, functional specifications and detailed estimates.

- Development of BizTalk Server application integration component, using Visual Basic 6.0, the Microsoft XML Parser, MTS/COM+, MSMQ, the Wininet library, and ADO.
- Development of application forms, middle-tier business and data access components, and stored procedures using Visual Basic 6.0, MTS/COM+, Transact SQL and ADO.
- Development of middle-tier business and data access components, report templates and SQL Server stored procedures for desktop- and Web-based reporting systems using Visual Basic 6.0, MTS/COM+, Crystal Reports 8.0 and Transact SQL. Installation of Crystal Reports 8.0 Web Components Server and Page Server on Windows 2000 Advanced Server/IIS 5.0 server.

Alto Consulting - Consulting & Training Firm

September 1998 – March 2000

- Design and development of client-server and distributed / n-tier applications for a variety of clients, using Visual Basic 6.0, ADO, SQL Server/Transact SQL, Access 95/97 and Excel 97.
- Reporting using Access 95/97 and Crystal Reports 8.5.
- Preparation of vision/scope documents, functional specifications, technical architecture and detailed design documentation. Preparation of project schedules and detailed estimates.
- Logical and physical data modeling using ERwin. Process design using Visio. Development of application prototypes.
- Installation, configuration and administration of SQL Server 6.5 database servers. Upgrade of database servers to SQL Server 7.0.
- List management. Data conversion and normalization. Preparation of files for CASS/NCOA processing. Merge/purge programming and preparation of files for mailing.
- Technical consulting.

Rust Consulting Group - National Litigation Support and Class Action Claims Administration Firm

August 1991 – April 1997

- Design, development and administration of full-text retrieval, hierarchical and relational database applications for use in projects related to complex litigation, the administration of class action settlements, direct mail marketing, marketing research and human resources.
- Programming in a mixed NetWare/Windows/UNIX environment using DIBOL, FoxPro, Access Basic, and UNIX shell scripting tools.
- Heavy query and reporting responsibilities, using both SQL and procedural coding techniques. Report writers used included Access 2.0 / 97, FoxFire, and FoxPro 2.6.
- SCO UNIX system administration and shell scripting.
- Address standardization, merge/purge, and presorting of mailing files; label printing.
- Preparation of files for transmission to list management, NCOA, bulk mailing and address tracing vendors; merging results back into production database.
- Data conversion to and from a wide variety of formats using Data Junction and other tools.
- Integration of full-text retrieval systems and RDBMS applications with image retrieval systems.
- Demonstrations of full-text retrieval systems and image retrieval software in sales presentations.
- Post-sales training and technical support to users of database, image retrieval and data entry applications.
- Installation and maintenance of a variety of PC hardware.

EDUCATION / CERTIFICATIONS

College

University of Minnesota, Minneapolis, MN
BS Economics, 1986
3.86 GPA, Dean's List, Undergraduate Teaching Assistant

Certifications

Microsoft Certified IT Professional (MCITP)
Microsoft Certified Technology Specialist (MCTS)
Web Design Professional Series, MCTC
Microsoft Certified Solution Developer (MCSD)
Microsoft Certified Professional (MCP)

Microsoft Certification Exams

Designing Database Solutions and Data Access Using Microsoft SQL Server 2008
Microsoft SQL Server 2008 Database Development
Designing and Implementing Databases with Microsoft SQL Server 2000 Enterprise Edition
Designing and Implementing Web Solutions with Microsoft Visual InterDev 6.0
Analyzing Requirements and Defining Solution Architectures
Designing and Implementing Distributed Applications with Microsoft Visual Basic 6.0
Designing and Implementing Desktop Applications with Microsoft Visual Basic 6.0
Administering Microsoft SQL Server 7.0
Designing and Implementing Databases with Microsoft SQL Server 7.0
System Administration of Microsoft SQL Server 6.5
Implementing a Database Design on Microsoft SQL Server 6.5
Microsoft Access for Windows 95 and the Microsoft Access Developer's Toolkit

Additional details on training can be viewed at <http://zend.moore-database.com/zend/public/content/training>.

MILITARY EXPERIENCE

United States Navy - US Naval Communications Station, Rota, Spain

June 1975 – June 1979
CRYPTOLOGIC TECHNICIAN/RUSSIAN INTERPRETER

Honor graduate of the Basic Russian Course, Defense Language Institute, Monterey, California, and the US Air Force School of Applied Cryptologic Sciences, Goodfellow AFB, San Angelo, Texas. Collected and interpreted Russian-language materials aboard reconnaissance aircraft, employing a variety of electronic equipment. Cited for outstanding language proficiency. Position required a Top Secret security clearance. Achieved the rank of Petty Officer Second Class. Awarded Good Conduct Medal, Naval Expeditionary Medal, and Aircrewman designation. Honorable Discharge.