MICHAEL SHAWN LOCKWOOD

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EXECUTIVE SUMMARY

Microsoft Certified Database Administrator (MCDBA) since 2006 with over 20 years of experience focused on Microsoft SQL Server. Specializes in performance optimization, data-tier development, automation, and SQL Server Integration Services (SSIS). Adept in both relational and analytical database architecture, with deep expertise in Transact-SQL (T-SQL). For the past 15 years, has served as the sole or Senior DBA—designing and delivering scalable, high-performing solutions and resolving complex database issues and challenges with precision and speed.

I stay sharp by continuously learning and applying new technologies to the solutions I design and develop. My passion remains data and database architecture and automation, but I've also explored the application tier to better understand full-stack interactions. I first learned ASP.NET 1.1 in 2005 and later refreshed these skills with ASP.NET Core, MVC, REST, OData, D3.js, Angular, Entity Framework Core, and LINQ—strengthening my ability to design efficient, integrated solutions without shifting focus from the data tier. I've also explored R for statistical analysis using R Studio. While I've worked with Azure SQL, I prefer on-premises environments where I can maintain full visibility and control.

My commitment to continuous professional development, along with broad exposure to diverse business environments and team dynamics, has enhanced my ability to support and collaborate within data-driven application ecosystems. While my primary expertise lies in database architecture, automation, and SQL Server, I've worked closely with software development teams and contributed production-level code in C#. This experience — along with exposure to JavaScript, jQuery, D3.js, XML, XQuery, JSON, HTML5, CSS, DAX, and R — has given me a deeper understanding of how data interacts with application layers, helping me build solutions that align with business and development needs.

Also, as part of MCDBA training, I earned MCP certification for developing web applications with C# and Visual Studio, which has helped me better understand the architecture and mindset of software developers — ultimately improving my ability to build database solutions that align with application needs. I'm passionate about building end-to-end solutions and solving complex problems using SQL Server's full feature set. For over five years, I served as Information Infrastructure Director, managing development projects and leading a team through the successful delivery of business-critical solutions using Agile methodologies—particularly Feature-Driven Development (FDD). In that role and others, I served as data architect, database developer, and DBA, often in high-volume, transactional environments.

TECHNICAL SKILLSET

Extensive experience in Transact-SQL (T-SQL) development, SQL Server Integration Services (SSIS), and SQL Server Reporting Services (SSRS), Visual Studio Code as well as Visual Studio used primarily to leverage SQL Server Data Tools (SSDT)

Additional technical strengths include: High Availability & Disaster Recovery (HADR): Installed, configured, and managed Windows Server Failover Clusters (WSFC) and AlwaysOn Availability Groups in production environment

Performance & Security Tools: Implemented and managed Resource Governor, Extended Events, SQL Trace, and SQL Audit

Automation & Problem Solving: Designed and delivered automated data solutions using **T-SQL** and **SSIS**, including orchestrated **API** interactions

Web-Based Data Interfaces: Prototyped ASP.NET Core MVC, Angular and **React.js** web applications using **Visual Studio Code** and **Visual Studio** to deepen my understanding of application development workflows and full-stack integration. Gained practical experience with **API development**, **Identity Server**, and **Postman**, greatly enhancing understanding and collaboration with software engineering teams.

Application Collaboration & API Integration: Collaborated closely with software development teams to **prototype full-stack solutions** and explore integration techniques—greatly enhancing communication and mutual understanding. Gained hands-on experience developing APIs and working with tools like Postman, providing insight into modern application architecture and how to, for instance, use output parameters in stored

procedures instead of data sets depending on client needs. **Output parameters** can greatly simplify application code when only a few discrete values are needed. Unlike result sets, which require opening a reader, iterating through rows, and mapping columns, output parameters already contain the data and can be accessed directly—minimizing boilerplate and improving performance in certain use cases.

For additional background and project examples, visit linkedin.com/in/mslockwood

PROFESSIONAL EXPERIENCE

SENIOR SQL SERVER DBA and DEVELOPER

MeMD — January 2018 – June 2021 Acquired by Walmart Health

Key Accomplishments:

Designed and built an **automated file ingestion pipeline** to **retrieve**, **decrypt**, **parse**, and **process** member data files from enterprise clients — reducing processing time from 2 business days to under 90 minutes, minimizing manual intervention, and eliminating the instability of long-running, memory-intensive workflows.

Technologies: SQL Server on-premises, SQL Server Integration Services (SSIS), T-SQL, Visual Studio Code, Python, and PuTTY.

Developed and implemented secure credential storage and auditing mechanisms directly in SQL Server.

Architected **complex SSIS workflows** and **SQL components** to **manage**, **move**, and **transform** large volumes of data daily.

Key Responsibilities:

Led the **design**, **development**, and **administration** of all **SQL Server**-based data systems and **integration processes** across **cloud** and **local environments**.

Acted as a **mentor** to application developers, improving **SQL skills**, **query design**, **indexing strategy**, and overall **database hygiene**.

Consistently improved **system performance** by identifying architectural flaws, resolving **indexing** issues, and rewriting inefficient **stored procedures** and queries.

Collaborated cross-functionally with engineering and business teams to align data processes with operational goals.

SQL DATABASE DEVELOPER

ProKarma (Contractor for InEight) — October 2017 – February 2018

Key Accomplishments:

Designed and built an end-to-end **proof of concept (POC)** integrating **SQL Server Views**, supporting indexes, multiple **OData Service** endpoints, and an **SSIS** package to reassemble and process data from **OData URIs**.

Isolated the root cause of performance degradation in an **Azure SQL Shard Map Manager** database, improving response times and system stability.

Developed a POC **ASP.NET MVC** application demonstrating dynamic **SSRS** connectivity by injecting report parameters into a **ReportViewer** control.

Key Responsibilities:

Worked with both Azure SQL Database (PaaS) and SQL Server on Azure VMs (laaS), optimizing query performance and improving stability across environments.

Continuously improved system performance by correcting poor **schema design**, optimizing **indexes**, and rewriting **stored procedures** and **functions**

SQL DATABASE DEVELOPER

Cornerstone Advisors, Inc. — December 2016 – September 2017

Key Accomplishments:

Delivered extensive **T-SQL development** to produce the company's *Cornerstone Benchmarks* report — a flagship product for the banking industry.

Designed and developed over **40 SSRS business performance reports** supporting various **business units** and **lines of service**.

Engineered high-volume data exchange processes involving **JSON files** and **SQL Server**, facilitating seamless data integration between internal systems and external clients.

Gained deep hands-on experience with **JSON serialization**, **parsing**, **and bulk import/export techniques**, optimizing throughput and reliability for large data sets.

Leveraged **stored procedures**, **staging tables**, and custom ETL logic to automate and streamline the processing pipeline.

Created a custom database to serve as a **financial data warehouse**, integrating data from **QuickBooks**, **FDIC**, and **NCUA flat file sources**.

Developed a **web-based administration and analytics tool** using **ASP.NET Core MVC** and **D3.js** for interactive **data visualization** and **banking metrics**.

Key Responsibilities:

Enabled data-driven decision-making by designing systems that provided **secure**, **accessible business intelligence** across the organization.

Replaced error-prone Excel-based workflows with scalable, **database-centric solutions**, significantly improving reliability and operational efficiency.

SENIOR DATABASE ADMINISTRATOR

FlipSwitch, Inc. (Primavera Online High School) — June 2015 – October 2016

Key Accomplishments:

Eliminated database bottlenecks through extensive performance tuning — including query optimization, indexing, and partitioning — significantly improving throughput and responsiveness.

Implemented and managed Windows Server Failover Clustering (WSFC) and AlwaysOn Availability Groups to ensure high availability and fault tolerance.

Authored concise, streamlined documentation for **WSFC** implementations — removing unnecessary detail to make the process clear, accessible, and easy to follow.

Designed and implemented real-time monitoring for **SQL Server query queue length**, enabling rapid detection of performance anomalies.

Built a custom **schema auditing** solution, which enabled identification of unauthorized or accidental schema changes.

Resolved a critical production outage caused by a dropped index: detected the issue quickly, rebuilt the index within minutes, and traced the root cause — leading to improved **change control procedures** and preventing future downtime.

Replaced nightly ETL jobs with real-time transactional replication, offloading reporting overhead from the primary OLTP system and reducing system load.

Key Responsibilities:

Designed, tuned, and administered multiple **SQL Server 2012** instances supporting a **high-volume OLTP** environment for education software platforms.

Mentored developers on database design and writing efficient **T-SQL** queries, promoting **best practices** across the team.

Continuously improved system performance by identifying **hotspots**, correcting **schema** flaws, adding and **tuning indexes**, and rewriting resource-intensive **stored procedures** and **functions**.

SENIOR DATABASE DEVELOPER

Charles Schwab (Contractor via Randstad) — December 2014 – June 2015

Key Accomplishments:

Designed and delivered an efficient, automated **auditing solution** for **database permissions** across the enterprise — leveraging **SSIS**, **T-SQL**, and **PowerShell** to streamline **compliance** across a vast **SQL Server** landscape.

The environment comprised over **100 TB** of data, **1,000+ SQL Server instances**, and **15,000 user databases**—requiring constant prioritization of high-impact tasks.

Earned and maintained a high level of **trust** while gaining privileged access to **mission-critical databases** spanning numerous **business units**, each representing the operational core of a distinct **line of business**.

Provided subject matter expertise and recommendations on database design, security, and data management best practices.

The contract concluded successfully after six months, with transition to a full-time role elsewhere.

DATA ARCHITECT

Best IT Engineering (Rebuilders Automotive Supply) — January 2014 – October 2014

Key Accomplishments:

Designed and built a **modular**, **fault-tolerant ETL framework** using **SSIS** to process extremely large and **numerous flat file sources** — a common and critical challenge in the organization's data flow.

The new framework supported **error handling**, restarts, and **automatic detection** of corrupt files, significantly reducing downtime and the need for manual intervention.

Oversized files were intelligently split into **1,000+ segments** to enable controlled, **parallel processing**, improving throughput and resilience.

ETL tasks were organized into separate **SSIS** packages, with activity logged at both start and completion to ensure **traceability** and support diagnostics.

Developed a fully automated **SQL Server backup and disaster recovery process** using **SSIS** and **C#**, incorporating full, differential, and transaction log backups tailored to each database's **recovery model**.

Backup file information was pulled from **system tables**, enabling granular control over individual files and custom handling logic.

Implemented a centralized control table to drive backup behavior — including **retention**, **compression**, and remote file copies — using a **Script Task** within a **ForEach** loop.

Having the opportunity to develop and implement solutions at this level of depth and scale was a rare luxury — made possible by time, trust, and hard-earned experience.

Key Responsibilities:

Managed **SQL Server 2008 R2** and **2012 OLTP environments**, supporting critical applications across web, mobile, and Windows platforms.

Improved performance by correcting poor **schema design**, defining **key relationships**, tuning **stored procedures**, and adding appropriate **indexes**.

DIRECTOR, INFORMATION INFRASTRUCTURE

OnePoint Patient Care — September 2008 – January 2014

Key Accomplishments:

Conceived, designed, and developed the entire data infrastructure — including the relational database, data warehouse, security model, and ETL architecture — powering *OnePointRx*, the company's flagship ASP.NET web application and reporting solution built on SQL Server 2012.

Engineered a creative solution to a complex multi-tenant, multi-page reporting challenge using SQL Server Reporting Services (SSRS).

Built a report that rendered individual pages for each hospice patient, scoped securely by tenant.

Solved the problem by using a **parent report** containing only a list of patient IDs (1 row, 2 columns) as input to the **subreport**, where the **subreport** was embedded in column 2 — with **dynamic parameters** and strategic **page breaks** to control output.

The insight arrived spontaneously — the architecture of the solution became clear overnight, reflecting the kind of **deep internalization and problem-solving** that can't be rushed.

Served as **technical lead** and **project manager** for all software development initiatives, collaborating closely with the software architect and developers to deliver a **platform-agnostic**, **web-based application** used across desktop and mobile platforms (iOS, Android, BlackBerry).

Installed, configured, and administered multiple **SQL Server 2012** instances to support **multi-state operations** and expanded services, including **clinical** and **pharmacy benefits management**.

Designed and implemented a wide range of SSIS-based data integration solutions between hospice clients and third-party service providers.

Led the **upgrade** and **migration** of **SQL Server instances** from **2008 R2** to **2012**, ensuring **high availability** and minimal disruption.

Key Responsibilities:

Delivered enterprise database solutions to support both Data Services and Business Intelligence initiatives.

Designed **logical and physical relational** and **multidimensional database models** to support evolving business needs.

Performed end-to-end data analysis, integration development, performance tuning, and production support.

Conducted code reviews, oversaw **QA**, and developed automated **regression testing** and **reporting systems**.

Administered **SQL Server (2008 R2** and 2012), including **SSIS** and **SSRS**, supporting *OnePointRx*, third-party **pharmacy systems**, and internally developed **mobile applications**.

Tuned **stored procedures**, **indexes**, and **user-defined functions (UDFs)** to improve performance of **OLTP** and **reporting workloads**.

Led and managed a high-performing development team — including a senior software architect — providing technical direction, ensuring project alignment with business goals, and overseeing all in-house software initiatives from inception to delivery.

SENIOR DATABASE CONSULTANT

Digital Intelligence Systems (Contracted to Grand Canyon University) — August 2013

Project Scope:

Brought in on the strength of professional reputation to urgently **resolve critical system unresponsiveness** affecting production applications on **SQL Server 2012**, and to develop a solution for **forecasting database growth.**

Solutions Delivered:

Identified the **root cause** within one hour and resolved the issue within two, restoring full system functionality — using **SQL Server Dynamic Management Views (DMVs)** to analyze **active session behavior** and uncover the underlying issue.

Conducted a broader **performance assessment**, delivered optimized **T-SQL**, and implemented **automated monitoring** to capture **blocking chains** and generate **alerts** — preventing recurrence.

Designed and delivered an **automated data growth tracking solution**, capturing periodic measurements across key **SQL Server instances**.

Built tools for **forecasting** and **trend analysis**, giving *Grand Canyon University* greater visibility into future **storage** and **capacity planning**.

This additional work was assigned after resolving the primary issue on the first day — despite the project being originally scoped for two weeks.

SENIOR DATABASE ADMINISTRATOR

Choice Hotels International — July 2007 – September 2008

Key Accomplishments:

Conceived, designed, and led development of a custom utility called **AIMS** (Automated Index Management Solution) using T-SQL and SQL Server Integration Services (SSIS) — created in collaboration with a fellow DBA under my direction as the Senior DBA on a 7-person OLTP team. The utility automatically rebuilt or reorganized fragmented indexes across all SQL Server 2005 instances from a central location.

Included features such as **scheduling**, **alerts**, **automatic index discovery**, and **default configurations** for newly added servers and databases — making it both **scalable** and **low-maintenance**.

Leveraged configurable thresholds stored in **control tables** to monitor **index fragmentation** levels and apply **index reorganization** during periods of lower activity — **minimizing** the need for **full index rebuilds**. Combined with sound index design, this helped maintain **optimal OLTP performance** throughout the day.

Delivered supporting SSRS reports for navigating results and analyzing maintenance history.

Documented the solution thoroughly and presented it to leadership, where it was well received.

The utility performed **scheduled scans** for **index fragmentation** and applied **index reorganization** when fragmentation was moderate — deferring full rebuilds to only when necessary. This approach **optimized resource usage** and preserved **OLTP performance** throughout the day.

After implementation, AIMS fully automated index maintenance across hundreds of indexes — eliminating late-night manual DBA rotations, reducing operational overhead, and consistently maintaining high system performance.

Built a SQLCLR-based solution to monitor Windows Server 2003 drive space from a centralized SQL Server instance.

Key Responsibilities:

Administered the **SQL Server 2005** environment behind choiceADVANTAGE®, *Choice Hotels'* online reservation and hotel operations management system.

Managed features such as database mirroring, replication, backups, and log shipping (via Red Gate SQL Backup).

Improved database and application performance through stored procedure tuning, index optimization, and architecture refinements.

Promoted and enforced **best practices** in **database development** and **operations**, while developing **database-centric solutions** to support **enterprise applications**.

DATABASE ARCHITECT, DEVELOPER, AND ADMINISTRATOR

MotorWeb, Inc. — July 2006 – July 2007

Key Accomplishments:

Redesigned and migrated the company's **product database**, which served as the backend for its **e-commerce website**, transforming it from a **de-normalized**, **constraint-free** model into a properly **indexed**, **normalized**, and **transactionally sound** design.

Implemented **SQL Server 2005 Reporting Services (SSRS)** and **transactional replication** to enable local reporting capabilities.

Developed a **T-SQL** and **Visual C#.NET**-based **XML** solution to generate and manage **product feed files** for Internet shopping directories, automating the upload of product data in structured **XML** format.

Key Responsibilities:

Designed, implemented, and maintained a robust **SQL Server 2005** environment to support high-volume **e-commerce operations**.

Improved system performance and user experience by optimizing **stored procedures**, refining **indexing strategies**, and restructuring **query logic** where needed.

DATABASE DEVELOPER

Ryland Homes — January 2006 – June 2006

Kev Accomplishments:

Designed, developed, and implemented the new *Ryland Homes* database using **SQL Server 2005** to support core business operations.

Built and deployed **SSIS** packages to perform **ETL** operations, both ingesting data from external sources and exporting data from internal systems to third-party targets.

Leveraged **SQL Server's FOR XML** extensions, **Common Table Expressions (CTEs)**, and nested **FOR XML** queries to produce complex hierarchical **XML** structures for data sharing with partner websites.

Designed, tested, and implemented maintenance plans for both **SQL Server 2005** and **SQL Server 2000** environments, ensuring reliable performance and availability.

DATABASE DEVELOPER

University of Phoenix, Online (Apollo Group, Inc.) - September 2004 - January 2006

Key Accomplishments and Responsibilities:

Designed, developed, tested, implemented, and maintained multiple **SQL Server 2000 OLTP** databases supporting a variety of web-based applications.

Created complex stored procedures, user-defined functions (UDFs), triggers, and views using Transact-SQL (T-SQL).

Performed **schema redesigns**, including scripting data migrations and building full rollback plans to preserve data integrity during deployment.

Enhanced system performance through targeted **stored procedure** and **index** tuning, and architectural adjustments to critical **database objects**.

Diagnosed and corrected flaws in legacy **T-SQL logic** and **data workflows**, reducing production issues and boosting application stability.

ETL DEVELOPER

Mellon Financial Corporation - October 2003 - September 2004

Key Accomplishments:

Automated 28 manual processes using **SQL Server Data Transformation Services (DTS)** by developing a modular, reusable **package model**, enabling rapid development of each subsequent process.

Designed and developed a relational database to store, secure, and manage client information, as well as metadata for **SQL Server Agent Jobs** and **DTS Packages** used in client data workflows.

Key Responsibilities:

Developed **stored procedures**, **user-defined functions (UDFs)**, and **DTS Packages** to process, manage, and distribute client data using **SQL Server 2000**.

Created a standardized **DTS architecture** using shared components, significantly reducing development time and increasing maintainability across **ETL** processes.

Evaluated, recommended, and implemented improvements to existing database processes, ensuring **data integrity**, **scalability**, and **performance**.

Managed all DTS workflows, leveraging T-SQL, ActiveX scripting, and scheduled SQL Server Agent Jobs to support automation.

Diagnosed and resolved **data entry** and **retrieval** issues tied to **business logic**, user behavior, and **web-based commercial application** processes.

DATABASE DEVELOPER AND ADMINISTRATOR

Saturn Marketing Technologies, Inc. (Telecommunications Agency) – April 2000 – October 2003

Key Accomplishments:

Normalized and migrated seven databases from **Microsoft Access 2000** to **SQL Server 7.0a** to support growing data volume — significantly improving **scalability**, **performance**, and **data integrity**.

Implemented **SQL Server 7.0a** to support secure, **Internet-based client access**, replacing legacy systems and enabling **real-time reporting for the first time** in the organization's history.

Designed and developed a .NET-based web application using ASP.NET Web Matrix, providing clients with browser-based access to current data and reports — marking my introduction to web development.

Streamlined data processing, management, and reporting by automating workflows with DTS Packages; reduced runtimes from hours (or days) to minutes using stored procedures and SQL Server Agent Jobs.

Migrated servers and workstations from **Windows NT 4.0** to **Windows 2000** and **Windows XP**, improving security, reliability, and system support.

Installed and configured **SuSE Linux** and **DNS server** software on **custom-built servers** to manage dynamic domain name changes efficiently.

Replaced **Microsoft Exchange Server 5.0** with **qmail** to resolve open relay vulnerabilities, reduce costs, and eliminate service interruptions.

Personally sourced components online and built the company's two **production servers** starting with **bare** metal **server cases**, including acquiring custom steel plates for mounting, and installed and racked them in the company's server room.

Key Responsibilities:

Evaluated, designed, developed, tested, and maintained databases using **SQL Server 7.0a**, including development of **DTS Packages**, **stored procedures**, **views**, and **triggers**; ensured **data integrity**, managed **replication**, and optimized **data storage**.

Administered and supported the company's **network infrastructure**, including **domain controllers**, **workstations**, **email server**, **DNS server**, and **antivirus** software across **Windows NT/2000/XP** and **SuSE Linux** platforms.

Managed and maintained network hardware, including Cisco and Netopia routers.

Delivered technical support at all levels, from infrastructure troubleshooting to end-user application support.

DATABASE DEVELOPER AND SYSTEMS ADMINISTRATOR

Home Improvement Mortgage, Inc. – November 1998 – February 2000

Key Responsibilities:

Designed, developed, and maintained a **marketing database** using **Microsoft Access 97**, performing complex **data manipulation** and **cleansing** to prepare records for integration with a **computer telephony system**.

Administered the **Local Area Network (LAN)**, including hardware/software installations, **Windows NT Server** maintenance, and end-user technical support.

Database Developer

Arizona Public Service Co. – September 1997 – October 1998

Kev Accomplishments and Responsibilities:

Designed and developed a **Windows application** for *CyberTrails* to track **WAN infrastructure** using **Microsoft Access** and **Visual Basic**.

Created executive-level **monthly trend reports** using **Access** and **Excel**, delivering actionable insights to leadership.

Developed data access logic components in **Visual Basic** for the *APS Energy Services* **browser-based intranet application**, supporting customer order and inquiry management.

Used **Microsoft Project** and **Office** tools to manage project schedules and support *APS Business Ventures Group* in tracking and coordinating key business activities.

Created and personally delivered monthly **revenue trend reports**—featuring **Microsoft Access reports with charts** printed in color on a wax-transfer printer, then manually hole-punched and bound using plastic comb bindings—ensuring the CEO received clear, professionally presented financial insights.

EDUCATION

Bachelor of Science in Business Administration DeVry University, Phoenix, AZ — June 2003

Graduated Magna Cum Laude, cumulative GPA: 3.78

Member, Sigma Beta Delta National Honor Society (Business, Management, and Administration)

Dean's List and President's List, eight terms

CERTIFICATIONS

Microsoft Certified Database Administrator (MCDBA) – January 2006

Microsoft Certified Professional (MCP) – Developing and Implementing Web Applications with Microsoft Visual C#.NET and Visual Studio .NET – December 2005

Microsoft Certified Professional (MCP) – Installing, Configuring, and Administering Microsoft Windows 2000 Server – September 2003

TECHNICAL TRAINING (Instructor-Led Courses)

AppDev – Developing Microsoft ASP.NET Web Applications Using Visual Studio .NET in Visual C# .NET, and Programming with Microsoft ADO.NET – June 2003

PROFESSIONAL HIATUS

Career Break – International Travel and Personal DevelopmentJuly 2021 – August 2025

Took a planned sabbatical following MeMD's acquisition by Walmart Health, enabled by a financial window and the sale of personal real estate.

Traveled extensively throughout Southeast Asia, primarily Thailand where I studied language and culture. Also visited Indonesia, Laos and Malaysia. Completed one year of Thai language study, building cross-cultural communication skills and adaptability.

Conducted extensive research into Bitcoin and cryptocurrency market cycles, developing a deeper understanding of macroeconomic trends and decentralized systems.

Recently began revisiting core technical skills, which reaffirmed a strong preference for on-premises SQL Server and PostgreSQL — valuing performance, transparency, and control.

Returning to full-time U.S. employment in August 2025, focusing on hands-on database administration, development and performance optimization. **My core strengths: database administration, optimization, development and automation, and SQL Server Integration Services (SSIS).**

References available upon request.