

Ongoing Education

Currently

Harvard Extension School Data Science Certification

Spring, 2015 start date for 6 course certification process including Monte Carlo methods for inference and data analysis, statistics via R language, statistical methods, quantitative methods, big data analytics, and visualization

Experience

March, 2014 to present

Managing Principal, Custom Software Design Global

- Hands on management of multiple client projects and all technical and operational staff including close relationships with clients individually (Resources, timelines and source code managed in Team Foundation from 2010 forward)
- Work directly with clients and our business analysts to gather requirements data for all incoming projects and translate those into **functional requirements documentation, timeline and resource allocation, risk analysis, and budgetary requirements**
- Management of **full life cycle development** for internal business applications, web-based public applications/sites and complex databases, and business intelligence projects with **enterprise-wide reporting and complex analytics**
- In addition, with 20+ years' experience working with clients and data I have been able to work with my clients and suggest methods and algorithms to **monitor and manage productivity, retention and potential production or customer satisfaction bottlenecks, predictive analysis, understanding customer behavior, auditing records, risk analysis, and more.**
- Proficient with all version of MS SQL through 2012 and responsible for oversight and hands on application of design and development of SQL databases (transactional and warehousing)
- Manipulation and management of terabytes of data
- Business intelligence design, architecture, and development: SSIS, SSRS, SSAS
- ETL, database strategy, performance tuning, query optimization, stored procedures, and documentation
- Limited C#, VB.NET and ASP.NET application development
- **Work with international client base and outsourced development teams as needed from 7 different countries on their time zones**

November, 2013 to March, 2014

Independent Senior Business Intelligence Architect (multiple clients)

- Identify and work with key C-level sponsors
- Oversee the documentation of existing BI solutions, desired BI solutions, and the underlying business processes and practices feeding those solutions and build BI solutions where none exist

- Work with subject matter experts to document business processes, core common use word and phrase definitions, and isolated data sources
- Mentor junior-level SQL developers and BI developers in t-SQL, SSIS, SSRS, SSAS, BIDS, and more
- Growth plan management for BI solutions and systems
- Design and build ETL solutions (SSIS), dashboards (Dundas, PowerView, etc), SQL reports (SSRS), data models (multiple tools), SharePoint BI centers, self-serve BI solutions, and more
- Drive business insight to improve revenue, production and returns on IT investments with improved BI solutions
- Design and oversight of the implementation of “big data” solutions including Hadoop and MS PDW (MPP technologies)

August, 2013 – November, 2013

Agile Resources

Consultant for Client: OtisED – Reports Developer – 3 month contract, ending November 30, 2013

- Design and develop SSRS reports
- Build complex T-SQL stored procedures

March, 2013 – July, 2013

Cypress HCM contracted to Kabbage (midtown Atlanta)

Contract Lead Business Intelligence Architect and Developer (Director Level Position) – 3 month contract

- Design and develop all business intelligence solutions for executive management
- Daily hands-on work with SSRS, SSIS, SSMS, SSDT, PowerPivot, PowerView, Sharepoint, T-SQL, stored procedures, and more
- Data modeling including building reports and data source aggregation for financial underwriting, operations KPI evaluation, corporate-wide performance evaluation and more
- Documentation of functional requirements and building wireframe prototypes

2008 to 2012

Custom Software Design Group, LLC

Lead SQL Developer and BI Architect and Sr. Project Manager

- Hands on management of multiple client projects and all technical and operational staff including close relationships with clients individually (Resources, timelines and source code was managed in Team Foundation from 2010 forward)
- Worked directly with clients and our business analysts to gather requirements data for all incoming projects and translate those into **functional requirements documentation, timeline and resource allocation, risk analysis, and budgetary requirements**
- Management of **full life cycle development** for internal business applications, web-based public applications/sites and complex databases, and business intelligence projects with **enterprise-wide reporting and complex analytics**
- In addition, with 20+ years’ experience working with clients and data I have been able to work with my clients and suggest methods and algorithms to **monitor and manage productivity, retention and**

potential production or customer satisfaction bottlenecks, predictive analysis, understanding customer behavior, auditing records, risk analysis, and more.

- Examples of **completed** complex business intelligence and data warehousing projects include the following projects.
 - Project #1: major e-commerce company project tracking billions of click events across multiple web sites – original budgeted cost \$6.7 million. Final cost: \$2.3 million. Requested delivery deadline was 24 months from inception and was actually completed and approved by the client in 13 months.
 - MS SQL 2012
 - Worked directly with business analyst to **gather user requirements** and translate those into realistic **technical deliverables** on an attainable timeline
 - **Architected data warehouse** from inception as **star schema** with input from **dozens of sources** including isolated MS Access databases, MS Excel spreadsheets, Oracle, OLTP SQL databases, and more
 - Leveraged **MPP** technologies via Microsoft **PDW** appliance and implemented **Hadoop** to manage distribution of data aggregation and node failures.
 - **SSIS** ETL data transformations included processes after import to scrub data anomalies.
 - **SSAS** was used to create cubed data sets as necessary and that data was subsequently moved to appropriate data marts wherein users (secured through **Active Directory** and **SSRS** Security) accessed **SSRS** reports on this data to make marketing and retention decisions about customers.
 - Most **SSRS** reports were built via .NET automation of the presentation layer with .rdl's populated by means of the UI for greater control of output.
 - Team productivity and source code was managed via **Team Foundation Server**.
 - Project #2: one of the top 3 telecoms in the world requested application to present upsell and cross-sell products to customer service representatives on calls with end users as well as indicators for customer retention and churn information. Budget \$1 million and 1 year for the analysis and requirements gathering and an additional 2 years and \$3 million for the solution build. I led this project to completion in 1 year, 6 months including the analysis and requirements gathering as well as the solution build. Total actual cost: \$2.3 million.
 - **MS SQL 2008 r2**
 - Worked directly with end users to build requirements documentation and set technical timelines for deliverables.
 - Because there were terabytes of data to manipulate, a **parallel SQL execution model** was employed whereby all eight server processors were calculating concurrently to ensure all data aggregation could be completed on time without interfering with server performance during normal business hours.
 - Using **SSIS**, that data was imported into required data warehouse tables designed in a star schema.
 - Subsequently that data was aggregated via **SSAS** into the appropriate data mart views from which the presentation layers (reports) were fed.
 - Business rules were applied during the aggregation process to ensure receipt of the data to the interface was extremely rapid and did not impact customer experience or call times.
 - Project #3: influential energy analytics company requested a custom application which would allow them to automate the process of analyzing client energy consumption.
 - **MS SQL 2008 r2**
 - Gathered data points from independent metering sources via **SSIS** ETL from multiple data source types including client data mapped and imported from **Great Plains**.
 - Processes were employed after import to scrub data anomalies via **SSIS**.
 - Data was imported to the star schema data warehouse and using **SSAS** was aggregated into the appropriate data marts.
 - **Active directory security** was employed to ensure data was accessible only as authorized to individual users.
 - **SSRS (.rdl files)** dashboard reports were built to present data to the relevant department heads.

- Reports were built in **SSRS** but a custom **.NET** application was used as the front end for delivering those reports to enable more control over filtering and security as well as monitoring statistics of what reports were regularly used.
 - Project #4: British industrial client requested data warehouse application to import OLTP data from industrial machinery for data warehouse
 - **MS SQL 2008 r2**
 - Met with and built **requirements documentation** with business analyst
 - Established timeline and resource allocation for deliverables in **MS Project**
 - Set up **SVN** for source code storage
 - **SSIS** ETL was used to import the data into a star schema warehouse. Processes were employed after import to scrub data anomalies.
 - **SSAS** was used to build data marts which were aggregated throughout the day each day from the data warehouse based on pre-determined schedules and trigger events.
 - Subsequently, **SSRS** reports were presented the client with operational performance measurements and analysis.
 - **.NET** was used to present a dashboard populated by the data marts
 - **SSRS .rdl** files were used via **.NET** interface to present
 - business score card reports,
 - rolling average efficiency reports,
 - productivity expectation reports across all key performance indicators
 - In addition, a **predictive model** was designed to forecast potential production bottlenecks and **risk analysis**
 - Project #4: South Dakota Office of Tourism project managing state park travel data
 - **MS SQL 2005**
 - This warehouse was already in existence when I took over the project. Therefore, data was imported to a snowflake schema data warehouse via **SSIS** ETL
 - I made modifications to aggregate data via **SSIS** and **SSAS** to the appropriate data marts
 - Data anomalies were scrubbed via **SSIS** once they arrived in the warehouse and we were able to rework the data marts which fed the application interface and the reports used by South Dakota to determine travel statistics for the state parks
 - I offered my experience in **predictive analysis, machine learning, and pattern recognition** to help the South Dakota Office of Tourism to apply for grant funding and to encourage business growth in the areas where trending demonstrated growth potential
- SQL 2000/2005/2008/2012 DBA responsible for oversight and hands on application of design and development of SQL databases (transactional and warehousing)
- Manipulation and management of terabytes of data
- Business intelligence design, architecture, and development: SSIS, SSRS, SSAS
- ETL, database strategy, performance tuning, query optimization, stored procedures, and documentation
- Limited C#, VB.NET and ASP.NET application development
- **Work with international client base and outsourced development teams as needed from 7 different countries on their time zones**

September, 2007 to January, 2008:

Contract Employee for Fujitsu Consulting, Atlanta, GA - Client: CHRISTUS HEALTH CARE, Houston, TX

Sr. Project Manager and Developer

- Evaluation and repair of existing 3-tier application (SQL, VB, legacy ASP) for client
- Design, development and deployment of C# add-on modules
- Technical documentation of conversion plans (conversion to .net/SQL 2005) for remainder of project

May, 2007 to September, 2007:

Maternity leave

April, 2003 to May, 2007:

Contract Employee for Teksystems

Client: Verizon Wireless, Alpharetta, GA

December, 2006 to May, 2007

Project Manager and Sr. SQL Developer

- Conversion of extensive business critical MS Access database application to MS SQL 2000
- Design and development of SQL jobs, DTS Packages, stored procedures and more to emulate existing functionality in MS Access application
- Conversion of over 300 data tables to SQL and redesign of relationships
- Conversion of front end data connectivity to attach interface to SQL data and retain integrity of application functionality
- Converted MS Access front end to client-server application

Client: Consumer Source, Inc., Norcross, Georgia (a division of Primedia, New York)

February, 2006 to December, 2006

Project Manager and Sr. SQL Database Administrator

- Designed and managed star schema datawarehouse for 6+/- terabyte data set
- Designed and developed SQL Reporting Services interface for end users
- Management of data transformations and data movement across multiple databases and servers in enterprise data warehouse
- Management of 1000+ complex SQL jobs, DTS packages, stored procedures, and triggers
- Design and maintenance of project plans for event models and reporting of three industry leading websites (www.apartmentguide.com , www.autoguide.com, www.newhomeguide.com)
- Design and management of business intelligence models
- Coordination of team resources to meet datawarehouse project deadlines
- Active directory authentication management
- Services exposure to external clients based on LDAP authentication

Client: PRG-Schultz International, Atlanta, Georgia

April, 2004 to December, 2005

Project Manager and SQL Developer

- Designed and developed data structure for SQL 7.0/SQL 2000 databases for intuitive user interface use
- Development included DTS automation of data movement and complex and dynamic stored procedures.
- Required use of intricate T-SQL programming knowledge and SQL 7.0/2000 stored procedures.
- Hiring and management of up to 10 Senior SQL developers and contract negotiations with contracting agencies.
- Project management of multiple development projects.
- Responsible for design and development of application documentation (user and developer).

Client: United Parcel Service (UPS), Atlanta, Georgia

April, 2003 to April, 2004

Sr. SQL Development Manager

- Designed and developed data structure for SQL 7.0/SQL 2000 databases for monthly and weekly data reporting for UPS globally.
- Development included full DTS automation of data movement from warehouse to reporting databases, complex stored procedures, custom DTS packages and SQL Agent jobs.
- Required use of complex T-SQL programming knowledge and SQL 7.0/2000 system tables and stored procedures.
- Designed and developed SQL automation tools throughout UPS corporate reporting services.
- Fully automated SQL jobs to import reporting data on all UPS packages shipped and unit performance for UPS globally.
- Designed conversion process to move DTS packages and data from SQL 7.0 development servers to SQL 2000 production servers.
- Managed the process of transferring 115 gigabytes of warehouse data weekly and monthly from warehouse servers in New Jersey to reporting SQL servers in Atlanta, Georgia.
- Responsible for design and development of application documentation (user and developer).

September, 2001 to February, 2003:

Robertshaw/Invensys, Maryville, Tennessee

Sr. Web Developer and SQL Database Administrator

- Design and development of data structure for SQL 2000 database including data warehousing and transactional server, stored procedures, cubed data, custom DTS packages, and more
- Responsible for design and development of data structure for SQL 2000 transactional database and data warehouse and standardization of metadata
- Design and development of ASP and Flash 5/MX web application for Business-to-Business web application
- Responsible for design and development of application documentation (user and developer)

November, 2000 to September, 2001:

TEKsystems

Software Development Consultant

Project: Ruby Tuesdays, Maryville, Tennessee

- Design and development of data warehouse solution for financial and operational data
- Responsible for design and development of data structure for SQL 2000 transactional database and data warehouse and standardization of metadata
- Implementation of Data Transformation Services (DTS) to move existing data from operational locations into data warehouse : included writing custom DTS tasks in Visual Basic 6.0
- Development of COM components used with Lotus Notes to automatically email reports from new data warehouse
- Programming skills utilized: VB Script, T-SQL, stored procedures, triggers, SQL diagrams,
- Metadata, Data Transformation Services, HTML/DHTML, COM development in Visual Basic 6.0, Microsoft Transaction Service (MTS), Visual Source Safe, database design and warehouse design

Project: Alpine Industries/EcoQuest International, Greeneville, Tennessee (Two Part Project)

Project Part I (E-Commerce Solution)

- Initial project evaluation of existing hardware and software systems, human resources, development tools and Information Technology strategy and recommendation for expansion to E-Commerce solution
- Lead responsibility for design and project flow for N-tier customized E-Commerce solution

- Database administrator for normalized SQL Server 7.0 database design. Converted existing records from denormalized SQL 7.0 database to normalized SQL 7.0 database.
- Instituted use of triggers and stored procedures for data layer of application
- Developed code for E-Commerce solution written in: Active Server Pages (ASP), HTML, CSS, COM/DCOM in Visual Basic 6.0 with ADO 2.5 connectivity using MTS, client-side JavaScript and server-side VBScript, XML
- OOD development of internal Visual Basic applications to allow user maintenance of the web site
- Design and creation of OLAP SQL Data Mart for operations group to allow denormalization of information for simplified report coordinator operations
- Formed and trained user group for scheduled deployment testing against a staging server before release to production

Project Part II (MIS Work Order Tracking System)

- Initial project evaluation of operational responsibilities and flow of MIS department
- Created MIS Work Order tracking system to allow automated initiation or and tracking of work order requests from MIS internal customers
- Implemented logic to report on TCO (total cost of ownership), ROI (return on investment), Cost benefits analysis, resource allocation , progress toward “zero administration initiatives, work order aging, and improvements in aging and budget/forecast convergence
- N-Tier client-server application with presentation layer written in Visual Basic 6.0 and ASP, COM/DCOM layer written in Visual Basic 6.0 with ADO 2.5 connectivity, and data layer written in SQL 7.0
- N-Tier ASP application for use on corporate intranet – allowed users to access work orders, the creation of work orders, status of work orders and reports regarding MIS progress

April, 2000 to November, 2000:

Move.Com/National Home Connections, Knoxville, Tennessee

Director of Technology Integration

- Hired to coordinate moving this business from a limited MS Access database application to a more complex three-tier application - member of 18 person development team
- Initially converted existing 150,000 records from multiple denormalized Access database to normalized SQL 7.0 database
- Responsible for design and development of data structure for SQL 7.0 transactional database and data warehouse and standardization of metadata
- Responsible for coordination of business criteria for development of three-tier customized Visual Basic 6.0, MTS and SQL Server 7.0 application as well as ongoing OOD development of the application
- Developed code for a client application written in Visual Basic utilizing COM/DCOM as well as ADO connections to SQL stored procedures
- Developed code for a server-side application written in ASP, XML, DHTML, HTML and VBScript
- Developed Javascript code against Brio reporting tool for creation of business reports via ANSI standard SQL queries
- Design and creation of OLAP SQL Data Mart for operations group to allow denormalization of information for simplified report coordinator operations
- Formed and trained user group for scheduled deployment testing against a staging server before release to production
- Supported RAD development process including specific quality control measures and use cases
- Process and personnel management for length of project (budget/forecasting included)

May, 1999 to April, 2000:

TEKsystems

Software Development Consultant

Projects included:

1.) **Clayton Corporation, Knoxville, Tennessee** (February, 2000 to March, 2000)

Developed two applications:

1. Development of project which is a re-write of an existing Perl application wherein dealers enter consumer personal and credit information and this program converts the information from "flat files" (.txt fixed width) via VB scripting before updating SQL tables: Perl, SQL server 6.5, Visual Basic 6.0, VB Scripting, ADO 2.0
2. Development of an application management program which allows the network administrator to enter the path of an executable and the number of seconds between execution. All chosen programs are then executed at intervals based on the Administrator's request.

2.) **Five Rivers/Taylor White Corporation, Greeneville, Tennessee** (November, 1999 to February, 2000)

- Design and development of complex database reporting application including full life cycle creation and management as follows: mapping old DBASE tables to new
- SQL server tables and integration with CYBORG payroll and human resources system
- Creation of complex SQL stored procedures and utilizing SQL views and routines in timed file updating, design and creation of Visual Basic "front end" application utilized in user requests for multiple-parameterized reports
- COM, DCOM, ADO 2.1, OLE, VBA and integration of MS Office Applications (reports generated in MS Word 97 merge documents, MS Excel 97, MS Access 97, DHTML reports for access across Intranet, and Crystal 6.5 reports)
- Distribution of the application and continued debugging and testing in the field

3.) **Metron Digital Corporation, Knoxville, Tennessee** (August, 1999 to November, 1999)

- Rewrite of Return Authorization project previously written in VB5/DAO/RDO. Used existing programs interface and rewrote the code to include ADO/COM in Visual Basic 6
- Queries in previous program were written to Access database; converted those to SQL Server 6.5 queries
- Crystal Reports 7.0
- Development of class modules and user controls

4.) **King Pharmaceuticals, Bristol, Tennessee** (June, 1999 - August, 1999)

- Design and coding of Visual Basic, SQL and MS Access applications for outbound call center and data mining of monthly imported data from third party
- User and DBA documentation written for 6 separate databases for telemarketing, market research and advertising divisions
- Responsible for merge of 10 Access databases and subsequent conversion of those databases to Visual Basic front end and an Oracle/PL/SQL backend
- Development of Visual Basic application including some CTI functionalities (working with Windows NT 4.0 TAPI calls)
- Code modifications of conversion application written in Access and Visual Basic/SQL to convert EDI fixed width files from a Gentran system through the application into a third part application
- Project design and beginning application development of Inventory Management system written in Visual Basic and Oracle (enterprise application) application

December, 1997 to May, 1999

NOVA Information Systems

Director of Customer Satisfaction, reporting to Senior Vice President of Operations

- Assumed responsibility for (approximately 400 indirect reports):
 - Research Department
 - Quality Control Department
 - AIS Software Development Team
 - Management of Customer Service
- Software Development (MS Access, Visual Basic) for Intranet use by Management
- MS Access and Visual Basic applications for database tracking/storage of personnel productivity
- MS Access/Visual Basic application for quality control tracking and storage, matching against performance standards

- Departmental applications designed to track productivity and feed to primary database program
- Knowledge applications for Intranet reference allowing information distribution across WAN
- HTML, Visual Basic, VBA

May, 1996 to December, 1997:

Philips Consumer Electronics

Manager of Computer Technical Support, Jefferson City, Tennessee, reporting to Vice President of Customer Access Center

- Management of business-to-consumer inbound, outbound and blended call center environment including end-user technical support questions (inbound), add-on sales (inbound/outbound) and quality control surveys (outbound)
- Managed 65 Computer Technicians and 4 Assistant Managers
- Designed reporting to executive management
- Established departmental guidelines and performance standards for TSR's and Management
- Managed departmental performance to budget and rolling forecast
- Developed marketing plans, Proposals, Requests for Proposals and business growth management strategies
- Marketed to external (third party) clients and Extended Service contract
- Software Development:
 - Visual Basic application for tracking customer data and reporting to executive management
 - CTI application on SQL, in VB and C++; fully integrated program with Oracle
 - Member of design and development team in conjunction with third party vendor

1992 to 1996

STR Technologies/CD Archiving, Atlanta, Georgia

Owner

- Established and managed systems architecture firm targeting systems design for law firms, specializing in document imaging and document generation products and programming (proprietary languages and C language)
- Developed marketing plans, Proposals, Requests for Proposals and business management strategies
- Managed \$10-100K projects including subcontractors and temporary staff
- Specialized in business process improvement, document imaging systems and network architecture