Evan D. Reese

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SUMMARY:

Data/Information and Solutions Architect with expertise in working with complex data structures and cutting-edge technologies relevant to RDBMSs, Big Data, and Enterprise Grade Systems. Having served in a variety of roles, my unique perspective to all challenges holistically encompasses Data with a focus on Data/Information Architecture, and also have the perspective of a Solutions Architect, Project Manager, and Business User. Having been involved in projects relating to every facet of Data Management and having served in a variety of lead roles to deliver well managed solutions, there are few issues I have not encountered related to data. Over the past nine years I have been primarily focused on designing custom business solutions using a variety of tools/languages to streamline analytical work, and for the past seven years have been analyzing and improving Data Management practices at an Enterprise level. In my current role, I serve as the Chief Data Architect for the implementation of a Data Vault 2.0 Data Warehouse. In this role I have full responsibility for all data related deliverables and strategies, including database configurations, modeling, ETL, report delivery, engineering, and strategy. I am comfortable with on premises and cloud based data warehousing and have exposure to serverless data bases as well as database as a service and databases installed on cloud based servers.

EDUCATION:

The Pennsylvania State University   **University Park, PA**
Bachelor of Science Degree Mathematics – Actuarial Option   Graduated May 2012
Minor in Statistics   GPA: 3.48

TECHNICAL SKILLS:

- Relational Databases – Teradata, SQL Server 2008 R2/2014/2016, Oracle, MySQL, Postgres, Redshift
- AWS – RDS, DMS, EC2, OpsWorks
- Hadoop Cloudera Distro – HDFS Shell, Pig, Hive, HBase, Spark
- NoSQL – MongoDB
- Machine Learning - Supervised and Unsupervised Algorithms
- Modeling Software – ERwin, Sparx Enterprise Architect, Lucidcharts, Visio, Idera Data Modeler
- Data Modeling Frameworks – Conceptual, Logical, and Physical Modeling, Inmon Style Warehousing, Normalized Data Modeling XNF, Dimensional Modeling (Star, Snowflake), Data Vault 2.0
- Data Integration – SSIS, Custom Designed in BASH, Spoon Kettle Jobs, Talend Big Data, Custom utilizing Views in Database
- BI – Tableau, Power BI, PowerQuery, SSRS, TIBCO, Pentaho, Plotly
- MDM – SAP Data Services
- Data Quality – Talend Studio
- Data Analysis – SQL, T-SQL, Dynamic SQL, plpgsql, SAS, Minitab, Cart/TreeNet, MS Office
- Enterprise Architecture Frameworks – Investigative Architecture, Zachman Framework, DoDAF, C4 Model
- Solutions Architecture Modeling – Component Diagrams, Deployment Diagrams, Conceptual Context Diagrams, Data Context Diagrams, UML Models, DoDAF Models
- SDLC
- Agile (Scrum) – Scrum Master, Product Owner, Individual Performer
- Version Control – Git, TFS
- Scrum Boards – TFS, Version One, AxoSoft
- Programming languages – Python, Ruby, VBA, SAS, C++, Java, JavaScript, Scala, HTML, CSS, Octave/Matlab, R, Shell Scripting, UNIX/Linux Command Line
- Java Frameworks - Spring
- Operating Systems – Windows XP,7,10; Linux Redhat, Ubuntu, Fedora, CentOS
- Server OS – Windows 2008 R2, Windows 2012, Windows 2016, Redhat, HP-UNIX

EXPERIENCE:

Learning Sciences International, Johnstown, PA (Remote Employee)   **Summer 2015 to Spring 2018**
Data Architect   **May 2018 to Present**

- Lead Data Warehouse Build
- Implement Data Vault 2.0 Warehouse
- Determine required physical infrastructure for Development, QA, and Production environments
- Spearheaded the design of a Java Spring application that allowed for staff augmentation by automating warehousing
- Led RFP and modeling tool selection using Functional and Non-Functional Requirements completed in the first 3 months
- Programmed and implemented a bash prototype of the automation application that provided automation of a majority of the manual tasks involved in the warehousing process within the first 3 months

Fulton Financial Corporation, Lancaster, PA   **Summer 2015 to Spring 2018**
Data Track Lead   **June 2017 to May 2018**

- Lead Data Architecture and Governance, Data Engineering, and Reporting/Visualization Tracks
- Design integration and migration strategy

- Architect data solution for the commercial loan origination system implementation
- Generated and reviewed content for ICDs for in scope integrations
- Created data context, SV-1, conceptual, and component diagrams for the solution
- Assisted in the development and review of business, stakeholder, and functional requirements
- Authored data NFRs and job descriptions for projects
- Scored data sections of vendor and implementation partner RFPs

Data Analyst   **August 2015 to June 2017**
- Inmon Style Data Warehousing Initiative
    - Served as Project Lead, Scrum Master, Product Owner, and Data Quality Lead
    - Designed and presented overall architectural vision and roadmap for project redirection
    - Enhanced Physical Model
    - Led effort to design ETL standards including delta file generation methodology
    - Designed Templates, Scripts, and outlined process for QA/UAT validation process
    - Led QA/UAT Validations for data loads
    - Designed and Implemented RDM strategy
- Data Controls Process Enhancement
    - Analyzed existing process and identified opportunities for enhancement
    - Designed and Modeled Logical and Physical Normalized Data Model
    - Developed SQL Objects including Tables, Views, and Stored Procedures
    - Generated sample data and populated the model
- Strategic Initiatives
    - Enhanced Data Quality processes to include prospects
    - Delivered/Validated extracts to assign an Enterprise Unique Key to documents in the ECM System
    - Launched KDE initiative and related strategy
    - Authored Data Quality roadmap proposal
    - Designed a Non-Invasive Data Stewardship approach to implement Data Governance
    - Enhanced Algorithms in MDM/Data Quality Tool
- Validations
    - Full Validations - Commercial Spreading, Credit Relationship, Credit Card, Loan Servicing Integration
    - Partial Validations - Core System Upgrades and CRM Integration
    - STTM Validations - Floorplans
- Automated Tools
    - Python
        - Built parser that reads SQL Statements from VBA and documents
        - Designed a tool that generates sample records for Auditors from CSV files
    - VBA
        - Designed a TFS Scrum Board Web Scraper
        - Coded a Data Profiler that provides various metadata
        - Built and Implemented a Data Dictionary generator for SQL Server and MS Access databases
        - Designed a test case generator for SQL Server based on data type
        - Scripted a tool to validate large numbers of SQL Server test cases (able to handle thousands of validations)
- Validated SQL Server Triggers that generate historical tables; designed and tested over 70k test cases in an automated fashion
- Served as Scrum Master for the Anti Money Laundering/Bank Secrecy Act Controls enhancements and break/fix remediation
- Reverse engineered ETL process for all Credit Card information enterprise wide and rewrote all exports to external systems
- Reverse engineered the logic for hundreds of stored procedures
- Mentor multiple associate analyst/developers across the Data Quality, Data Architecture, and Application Development teams

Capital One Financial, Richmond, VA   **Summer 2012 to Summer 2015**
Senior Data Engineer   **March 2015 to August 2015**
- Designed a custom ETL application to load flat files from the recoveries core system to the production Hadoop Data Lake
- Developed methods transforming internal APIs and frameworks into modular components for use in custom built ETL applications
- Developed function to check the status of production Apache Tomcat servers
- Served as lead developer to a team of 6, and designed an application to load Credit Bureau information to the Hadoop Data Lake

Senior Data Analyst   **July 2014 to March 2015**
- Developed a tool to interact with TSYS mainframe to add notes to recoveries accounts that had filed for bankruptcy

- Designed and scripted a job to provide multiple updates throughout the day on the status of approximately 300 automated jobs to individual owners/teams responsible for that days run (accounted for complex scheduling and multiple contacts per job)
- Data Analyst lead for Recoveries ad-hoc big data UAT to convert Teradata SQL to HiveQL
- Developed a shell script utility to load tables from Teradata directly to HDFS without using Sqoop that utilized BASH, HDFS, and Hive shell scripting
- Served as team lead for a group of 5 Data Analysts at a hack-a-thon to ETL ASCII and JSON files on HDFS where our solution made use of Hive, Pig, and BASH shell scripting with awk commands and successfully handled the ASCII and JSON files provided
- Designed and scripted process to recall accounts from 4th party law firms and place with new 4th party firms
- Maintain, support, and improve approximately 30 automated processes related to Back Office and Legal Recoveries scripted in KSH, BTEQ, and SAS whose results were shared with everyone from operations managers to MVP level associates
- Recoded VBA routine that transfers data to a log from multiple inputs, and designed the process, including text error handlers, to upload this log to Teradata by using VBA and Teradata SQL
- Created a KSH script that can find dates defined with unique requirements such as the x weekday in the y week of the month that is not impacted by erroneous values in the UNIX system calendar
- Made improvements to multiple operational processes to correct deficiencies caused by legacy operations and simplified results provided to end customers by modifying VBA code and KSH scripts
- Designed VBA code to interact with internal web server to function like a pseudo file server despite not having a FTP connection to the server
- Overhauled VBA code that generated heatmaps for each state Capital One conducts Legal Recoveries business in and reduced run time from ~2 hours to 1-2 minutes depending on system performance
- Develop content and serve as course coordinator for Capital One's Intro to VBA class whose responsibilities included:
    - Scheduling classes
    - Developing and refining content
    - Recruiting instructors
    - Working with Capital One University to determine the need for sessions and obtain feedback on courses
- Develop content for, and teach the Capital One Big Data Academy Foundations Courses including:
    - *nix Basics – Overview of Linux and UNIX operating systems and overview of vi/vim
    - Intro to Git – Covers using Git Bash, creating Git repositories on local machines, and working with and linking to GitHub
    - Intro to Python – Covers arithmetic operations, logic, loops, and working with libraries/modules (primary content developer)
    - Advanced Python and Defensive Programming – Python assertions, developing code through defensive programming, classes/objects and advanced class properties including inheritance, encapsulation, and polymorphism

Senior Operations Analyst   **August 2013 to July 2014**
- Redesigned contingency agency bonus structure to provide meaningful bonuses determined by a simpler methodology, while at the same time driving cost savings through the program
- Set monthly goals for external and internal contingency agencies, and as needed identified where adjustments were needed to model outputs, and sized as well as recommended adjustments to the monthly goals
- Put together the presentation and story that described the monthly overall health of the external Recoveries contingency business, and worked with agency managers to gain additional insights to performance metrics not well represented by data
- Ran the contingency agency bonus structure and calculated external agency bonuses
- Performed ad-hoc analysis to verify that the results of the model that set agency goals were valid, and that the model was producing outputs that were obtainable for external agencies
- Using VBA and SQL designed an Excel interface to perform QA checks on all data provided for a monthly business health review
- Designed a suite of VBA macros in Excel to automatically generate monthly and quarterly emails with the required information and attachments to send to all customers from QA Managers to Directors

Operations Analyst   **July 2012 to August 2013**
- Designed a system known as ADCS (Automated Data Collection System) that provides a proxy SAS environment in Excel and uses Excel user forms in combination with VBA code, and system environmental variables, to transform data into records that are imported to SAS datasets, these datasets are then uploaded to Teradata tables by a nightly process; this system was used to collect data for:
    - Phone call data including call type and resolution – Data was used in analysis by 3rd party consulting firm for recommendations on new case management system for this department
    - Secured Messaging data including message type and resolution
    - Information on fraud calls
    - Information on chargebacks submitted to MasterCard
    - International wire claims – This project also included reports to track open claims and the ability to work open claims
- Created documentation and a presentation to explain how to use the ADCS to other associates at Capital One that provided enough instruction that a call center supervisor, with some guidance, was able to develop his own data tracking system for call agents
- Using VBA enabled automatic routing of certain fraud and disputes transactions to reduce the average time for provisional credit from around 7 days to 1-2 days on average
- Created intraday reports to be used by call center supervisors in SAS to monitor agent performance and incoming calls
- Completed analysis to review the MasterCard 1st Chargeback strategy and provided a recommendation for an improvement that had potential to generate almost 700k in savings
- Served as a teaching assistant for Capital One's Creating Effective Presentations class that instructs associates on how to create well planned and professional PowerPoint presentations

- Served as a mentor to 2 associates, and worked with them to further their skills in VBA, SAS, and SQL while challenging them to push their thinking to find the root cause of issues and then remediate appropriately

Genworth Financial, Richmond, VA   **Summer 2011**
Actuarial Intern
- Worked on Medicare Supplemental rate increase filings for multiple blocks of the business
- Prepared historical information for rate increase objection responses
- Furthered Microsoft Excel skills, and also worked in Microsoft Access and Microsoft SQL Server

The Pennsylvania State University, University Park, PA   **Spring 2010 to 2012**
Linear Programming Grader for Dr. Leonid Vaserstein   **Spring 2012**
- Graded homework assignments (2 per week) and exams, course topics included:
    o Linear Programming Overview
    o Simplex Method
    o Duality
    o Transportation Problems
    o Matrix Games
    o Linear Approximation
Plant Biology Teaching Assistant for Dr. Carolyn Jensen   **Fall 2010 and Fall 2011**
- Taught 1 lab per week in 2010 and 2 per week in 2011
- For each lab session my responsibilities included:
    o Setting up lab experiments
    o Discussing the material covered in class needed to complete the experiments
    o Create, administer, and grade lab quizzes
    o Grade lab assignments
    o Answer any questions students had on lab or class materials
    o Review materials to be covered on midterms prior to the exams
    o Graded students' final projects
- Proctored midterm exams
Resident Assistant   **Spring 2010 to Spring 2012**
- CN ED 302 co-instructor (required class to become a resident assistant) responsibilities included:
    o Teaching one class session
    o Participating in, and furthering classroom discussions
    o Grading class assignments
    o Answering questions
    o Providing examples of how to handle situations on the job
    o Relaying information about residence life policies
- Engaged students in community building activities to build a positive, open community respectful of diversity
- Completed rounds of floors and enforced Residence Life policies when needed
- Attended weekly staff meetings to address any issues/concerns other staff members had with their floors

Energy*Solutions*, Bear Creek, TN   **Summer 2008, 2009, and 2010**
Health Physics Department Intern
- Developed a Radiological Survey Application using Excel and Access with VBA to collect and store information for data trending
- Assisted in implementation of respirator bar code project to track respirator assignment
- Completed data entry for 3 years of radiological air sample data
- Logged all radiological surveys for ATG plant decontamination effort
- Assisted in environmental sampling for areas with potential radiological contamination
- Reviewed and QAed the labs backlog of stack air sample data

TRAINING:
Capital One Job Economics
Working in High Performing Teams
Modeling with Decision Trees: An Introduction to CART and TreeNet
Introduction to Teradata SQL
Creating Effective Presentations
Maximizing Your Time with Outlook
The Power and Principles of High Quality Decision Making
LEAN 101 Seminar
Forecasting and Time Series Analysis
Capital One Valuations
Delivering Compelling Presentations
Structured Thinking and Writing
Retail Bank Data
A Short Risk Course

Business Process Management Days 1&2
Creating Analytically-Based Customer-Level Strategies
COF Lessons Learned
Credit Risk Governance Overview
Problem Solving with Code
Moving Data between Capital One Systems
Big Data Academy – Pig
Big Data Academy - HBase
Systems Flow Inc - Investigative Architecture
CodeAcademy – Python
CodeAcademy – Ruby
CodeAcademy – Build a Website
CodeAcademy – Learn HTML
CodeAcademy – Learn CSS

CERTIFICATIONS/QUALIFICATIONS:
Machine Learning – Passed Coursera course from Stanford instructed by Andrew Ng
SQL - Currently tied for #1 rank on HackerRank.com in SQL
CDVP2 – Certified Data Vault 2.0 Professional

HONORS:
National Society of Leadership	**2010 to Present**
DAMA Philadelphia VP of Corporate Sponsorship	
Exam Author – Rewrite of CDMP BI/Data Warehousing Exam	

AWARDS:
Capital One Excellence in Action Job Specific Skills Award	December 2012
Capital One Excellence in Action Ownership Award	May 2013
Capital One Bank Ops Strategy and Analysis Associate of the Month	May 2013
Capital One Best People Spot Award	April 2014
Capital One Teamwork Spot Award	June 2014
Capital One Intellectually Rigorous Spot Award	August 2014
Capital One Best People Spot Award	October 2014

ACTIVITIES:
Zeta Beta Tau Fraternity	**Initiated 2010**

Treasurer 2011
Greek Chair Fall 2010

VOLUNTEERING:
Marine Corps Toys for Tots, Richmond Habitat for Humanity, Stop Hunger Now, Lancaster County United Way