**Tejaswi Nainala**

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**PROFESSIONAL SUMMARY:**

* Around thirteen plus years of total IT experience and expertise in data modeling and Data analysis for data warehouse (OLAP) , business Intelligence (BI) applications and implementing OLTP systems.
* Designed and implemented OLTP data models for various applications to support transactional processing and data integrity.
* Strong Data Mapping experience using ER diagram, Dimensional/Hierarchical data modeling, Star Schema modeling, Snowflake modeling using tools like Erwin, E/R Studio and Sybase Power Designer.
* Experience creating DDL scripts for implementing Data Modeling changes.
* Experience creating ERWIN, ER Studio and Toad data modeler reports in HTML, RTF format depending upon the requirement, Published Data model in model mart, created naming convention files, co-coordinated with DBAs to apply the data model changes.
* Very strong in using data modeling Tools like ERWIN, Power Designer, Toad data modeler and E/R Studio.
* Normalized tables and dimensions up to 3NF to optimize the performance.
* Experience in Data Integration techniques like Data Extraction, Transformation and Loading (ETL) from disparate Data Source databases like Oracle, SQL Server, MS Access, flat files, CSV files and XML files into target warehouse using various transformations in Informatica, Data Stage, ODI.
* Strong in Source to Target data mapping, Standardization Document Slowly Changing Mapping Creation, Star/Snowflake Schema Mapping Creation, RDMS, Building Data Marts and Metadata Management.
* Created the Logical and Physical design of the Data Warehouse (both Fact and Dimension tables) using STAR Schema approach.
* Delivered BI reporting solutions in Power BI, Reporting services (SSRS) and Tableau.
* Sound understanding of Gap Analysis, requirement management, risk analysis and project plans.
* Strong experience with architecting highly performance databases using PostgreSQL, Snowflake, MYSQL and Cassandra.
* Data modeling based on the data vault 2.0 approach to enable historical storage of data, integration of data from different operational systems, and tracing of the origin of all the data coming into the database.
* Interacted with all levels of the project development team, from end users to Software Architects, Technical Lead, Database Administrators, System Administrators, Senior managers and Partners
* Well versed with SDLC software development life cycle. Experience in dealing with different data sources ranging from Flat files, Oracle, Sybase, SQL server, Teradata, MS Access and Excel.

**EDUCATION:**

* Bachelor’s in computer science from Jawaharlal Nehru Technological University, Vishakhapatnam, India.
* Master’s in Computer Science from University of Illinois, Illinois, USA.

**CERTIFICATIONS**

  

* SnowPro Core certification – November 2023
* AWS Certified Solution Architect – November 2023
* Microsoft Certified Azure Fundamentals – January 2022

**TECHNICAL SKILLS**

* Data Modeling Tools: Erwin, E/R Studio, Sybase Power Designer, MS Visio, Toad, Hackolade.
* Databases: IBM DB2, Teradata, MS SQL Server, Oracle, MongoDBv2.2-3.4, Snowflake, Toad for Oracle, Studio 3T.
* Databases tools: Robo Mongo, MongoDB Compass, Oracle SQL Developer, Studio 3T for JSON, Altova XML Spy.
* Tools: MS SQL Server Integration services (SSIS), Analysis Services (SSAS).
* Development Skills: SQL, PL/SQL, DAX, Python, JSON.
* Data Warehouse: Informatica 9.6.1, Data Stage, Talend.
* Modeling: Star-Schema Modeling, Snowflake Schema Modeling, Fact and Dimension tables, ER Modeling.
* Cloud Computing Tools: Snowflake, Snow SQL, AWS, Postgres, Amazon S3, Azure Databricks, Azure Storage, Azure Synapse Analytics.
* Healthcare Standards: HIPPA, CCDA, HL7, HIPAA
* Big Data Technologies: Hadoop, HDFS 2, Hive, Pig, HBase, Sqoop, NoSQL, Flume.
* BI Reporting Tool: Power BI, Tableau, SSRS.

 **CAREER PATH**

**TechPro Solutions , Client - Travelers Insurance**  Nov 2022 - Present

 **Role: Senior Specialist – Data Architect**

**Project Overview:** The primary aim of Bond data architecture initiative is to provide data related services to Travelers Bond handling platform users. Project involves working closely with Travelers Insurance management teams and architecture team. BI & A has created suite of products and applications to cater to the needs of various stakeholders from business user. All these applications are self-service and few of them are built to be intuitive and data centric. Project’s objective is to make sure that all these applications and products are available 24x7 and are abiding to guidelines set by Travelers user interface designers, data quality, and information security teams. Project involves working with architecture team do design end to end data flow architecture for Bond Information system needs. Track all the projects and make sure D2P (Development to Production) procedure is followed.

**Responsibilities:**

* Under the direction of the Lead Information Architects, assist with architectural strategic thinking, information solutions and roadmaps to derive architectural recommendations.
* Led the design and implementation of data models using Data Vault 2.0 methodology for enterprise-level data warehouses.
* Designed and implemented hub, link, and satellite tables to capture business data in a flexible and extensible manner.
* Designing the data Architecture, designing Conceptual, logical and Physical data models and maintaining the data Dictionary as for the Standards.
* Analyzing and profiling existing legacy system data and sourcing data from legacy systems.
* Built dynamic dashboards and interactive reports in Tableau for effective data analysis and storytelling.
* Participating in Data Architecture Board Meetings and providing value adds / comments & feedback on fine-tuning the Data Architectural Standards and Guidelines towards the optimization of Architectural standards & policy.
* Doing the POC on new technologies like MongoDB, Snowflake and define the guidelines to the Development teams. Participate in defining and driving architecture competencies, processes and best practices across Business Insurance.
* Work on Migration project and involved in end to end integration of Snowflake and s3. Guided the Development team to implement the same on Production.
* Requirements gathering form business users for upcoming project requirements, analyzing the existing systems, preparing technical specification documents.
* Developed documentation and provided training to team members on Data Vault 2.0 methodology and data modeling concepts.

**Tools Used:** AWS, Tableau, Erwin, Snowflake, Tableau, TOAD, SQL Developer, Teradata, SQL server, Mongo DB, Azure Synapse, Rally, Java, Oracle SQL, Windows and Linux.

# USM Systems, Client – William Sonoma, San Francisco, CA Apr 2021-Nov 2022

**Role: Data Architect**

**Project Overview:** William Sonoma, CA is one of the largest retailers in the country, with some best known and most beloved brands in home furnishings, including Williams – Sonoma. Pottery Barn and West Elm. A key part of this role is to bridge the gap between business processes and business intelligence and to produce actionable reports that track KPIs, identifies areas of improvement which can assist in root cause analysis of problems. The focus is on developing the effective data models and communicating them via BI dashboards, reports, and applications which will be adopted cross-functionally throughout our organization to enable business users to easily find, manipulate, and evaluate data to make informed decisions to optimize our global value chain.

**Responsibilities**:

* Designed and implemented data models for REST APIs to support various Fraud management applications and services.
* Documented data models and API endpoints to facilitate clear communication with stakeholders and API consumers.
* Build data pipeline infrastructure for optimal extraction, transformation, and loading of data from a wide variety of data sources using SQL, cloud based relational or non-relational databases employing or scripting languages like Python.
* Identify, design, and implement internal process improvements: automating manual processes, optimizing data delivery, re-designing infrastructure for greater scalability, etc.
* Worked with developers to integrate data models into code, providing guidance and support as needed.
* Work with stakeholders including the Executive, Product, Data and Design teams to assist with data-related technical issues and support their data infrastructure needs.
* Create data tools for analytics and data scientist team members that assist them in building and optimizing Data integration platforms to serve William Sonoma Business data needs.
* Implemented versioning strategies for APIs to manage changes and ensure backward compatibility when necessary, and communicating these changes effectively to API consumers.
* Designed Conceptual model using ER Studio based on requirements analysis and normalized Logical and Physical database models to design OLTP system for retail applications using ER Studio.
* Monitored API performance and made adjustments to data models based on usage patterns and feedback from consumers.
* Validate all aspects of Database reports with complex SQL queries; including but not limited to data parameters cross check with previous versions, timely approach to resolving report issues.

 **Tools Used:** ER Studio, Power BI, Toad for Oracle, Oracle SQL Developer, Hive, Python 3, MongoDB, Jira, Bit Bucket, Confluence, HDFS, Sqoop, SQL Assistance, REST API, OLAP, OLTP, Alation Data Catalog

#  USM Systems, Client – First Tech Federal Credit Union, San Jose, CA Feb 2020-March2021

**Role: Senior Data Modeler**

**Project Overview:** First Tech is the nation’s premier credit union serving the world’s leading technology-oriented companies and their employees. The business is involved in offering a full range of customized products and services for financial wellness. Key responsibilities of the Data modeler include interfacing with all business stakeholders to formulate the right business questions, address them with scientific rigor, design, implement, test, productize, monitor and document data related assets effectively and contributing to rendering First Tech data-driven.

**Responsibilities**:

* Assembling of large, complex data sets that meet functional / non-functional business requirements
* Identify, design, and implement internal process improvements: automating manual processes, optimizing data delivery, re-designing infrastructure for greater scalability, etc.
* Work with stakeholders including the Executive, Product, Data and Design teams to assist with data-related technical issues and support their data infrastructure needs
* Actively participated in JAD sessions with Java Architects, ETL Leads, and Technical Leads.``````
* Responsible for creating conceptual, and logical and physical data models using a wide variety of modeling philosophies and techniques including Inmon and Kimball.
* Connected to Amazon Redshift through Tableau to extract live data for real time analysis.
* Handled importing of data from various data sources, performed transformations using Hive, loaded data into HDFS and Extracted the data from Oracle into HDFS using Sqoop.
* Enforced referential integrity in the OLTP data model for consistent relationship between tables and efficient database design.
* Maintain model metadata as required by QA modeling standards and applying security classifications to entities as defined by OA data governance
* Participate in data model review sessions to ensure models meet stated data requirements and responsible for physical entity creation in Dev, stage, and prod (via DBA request)
* Provided SAP HANA modeling and analytics expertise in the development of new solutions as well as the improvement of the existing solutions.
* Follow established configuration/change control processes and identified options for potential solutions and assessing them for both technical and business suitability

 **Tools Used:** ERWIN, Tableau, Mongo Compass, Snowflake, Toad for Oracle, Oracle SQL Developer, Hive, Python 3, Mongo DB, Jira, Bit Bucket, Confluence, HDFS, Sqoop, SQL Assistance, OLAP, OLTP

# USM Systems, Client – EIG of Nevada, Kansas City, MO June2019-Feb 2020

**Role: Lead Data Modeler**

**Project Overview:** EMPLOYERS, America's small business insurance specialist and Employers Insurance Company of Nevada are registered trademarks of EIG Services, Inc. Insurance is offered through Employers Compensation Insurance Company, Employers Insurance Company of Nevada. Employers has several projects related to their data lake involving mapping data to PostgreSQL as the database of choice. They currently have data in Mongo DB as well as DB2; where they need help map data for the data lake to move data into Postgres. There are 2 projects related to the data lake and there is a 3rd related to data audit and quality - data analysis - looking at tables, etc.; working with business and IT to look at data; profiling data - good vs. bad

**Responsibilities**:

* Accountable for analyzing and developing complex logical database designs, logical data models and relational data definitions in support of enterprise and customer information systems requirements.
* Conduct one on one sessions with business users to gather data warehouse requirements.
* Analyze database requirements in detail with the project stakeholders by conducting joint requirements development sessions.
* Responsible to profile the current data tables using SQL tools to determine the key relationships in existing tables and using that information to design postgres SQL data lake tables.
* Enforced referential integrity in the OLTP data model for consistent relationship between tables and efficient database design.
* Design normalized logical and physical database models to design OLTP systems for insurance applications using ER Studio.
* Use Reverse engineering to create a physical data model with the DDL that best suits the requirements from the logical data model for the new ODS curated Data store that Employers Insurance group is currently developing.
* Extract data from the databases using data stage to load it into a single data warehouse repository.
* Created and managed schema objects such as tables, views, cursors and indexes.
* Involved in developing content for and delivering training to others on the use of Tableau.
* Also involved in designing, developing and maintaining the reports and multi-level dashboards in Tableau for the client on the data lake.

 **Tools Used:** Power Designer, ER Studio Data Architect, Tableau, studio 3T, Mongo Compass, Toad for Oracle, Oracle SQL Developer, Mongo DB, Jira, Bit Bucket, Confluence, Soap UI.

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# USM Systems, Client - Anthem BCBS, Mason, OH June2017-June2019

**Role: Lead Data Modeler**

**Project Overview:** At Anthem I was involved in a Consumer Engagement Solution known as Enterprise Information Hub (eHub) which involves migration from an already existing CHUB with a lot of innovations. Existing CHUB involves domains like member, dental, vision and claims data. I’m responsible for enhancing the Insurance Policy Transactions and Claims data warehouse that has data pertaining to claims data, claims payments, Claim outstanding estimate changes. Our new claims system is a dynamic model that is required to be built incrementally This conversion is based on data vault architecture to support business rule changes with ease. This accomplishment helped in lowering processing costs and time by 10% for claims through the review and reverse engineering of existing database structures, which reduced redundancies and consolidated databases.

**Responsibilities**:

* Identify the business requirements by going over the business process and interacting with the business analyst and management.
* Reverse Engineered the existing database structure to understand the existing claims data models so that any changes incorporated would synchronize with the current model.
* Gap analysis and Profiling of potential Data Sources, upon high level determination of sources during initial scoping by the Project Team.
* Created Star schema to effectively translate the physical model into a dimensional model using conformed dimensions, role playing dimensions. Profiling data and standardizing names and data types.
* Supported the development and maintenance of data warehouse solutions for member domain, incorporating CCDA and HL7 standards for healthcare data interoperability.
* Designed and documented dimensional data models using ERwin Data Modeler and other data modeling tools, ensuring compliance with CCDA and HL7 standards for healthcare data exchange.
* Collaborated with healthcare providers and IT teams to define requirements and specifications for healthcare data integration, reporting, and analytics.
* Implemented data quality checks and validation rules to ensure the accuracy and integrity of healthcare data in compliance with regulatory requirements.
* Use power designer data browser to produce table and column specifications to be distributed ETL and report teams.

Provided data validation support during UAT.

* Validate logical data model and physical data model against the physical database.
* Developed standard queries to validate post ETL data.
* Developed logical data model and physical data model.
	+ Developed class words and maintained.
	+ Developed different subject areas for different functionality and to communicate the same to ETL and Reports teams.

o During PDM development, identified right data type, width, worked with DBAs to plugin right schema, tablespace information and produced DB scripts through “complete compare”.

* Produced detailed design document with DDL and source to table column mapping details.
* Developed SQL queries using common table expressions, temporary tables to support power BI and SSRS reports.
* Developed complex calculated measures using data analysis expression language(DAX).
* Provided continued maintenance and development of bug fixes for the existing and new Power BI Reports.
* Working with DBAs for physical implementation of the data model.
* Raised tickets for initial creation of the schema and tables.
* Submitted tickets for alter scripts to maintain changes.
* Studied standards defined by the data governance team and followed the design patterns and security implementations.

 **Tools Used:** Power Designer, Power BI, Toad for Oracle, Oracle SQL Developer, DB2 , MongoDB, Informatica 9.6.1, Jira, Data vault , Bit Bucket, Confluence, Soap UI.

 **Ventois Inc., Client: Office of Mental Health, Albany, NY June2016 – June 2017**

**Role: Data Modeler/Data Analyst**

**Project Overview:** New York State has a large, multi-faceted mental health system that serves more than 700,000 individuals each year. The Office of Mental Health (OMH) operates psychiatric centers across the State, and also regulates, certifies and oversees more than 4,500 programs, which are operated by local governments and nonprofit agencies. These programs include various inpatient and outpatient programs, emergency, community support, residential and family care programs.

**Responsibilities:**

* Gathering requirements, analyzing and writing the design documents.
* Providing End-user Training and documentation for customer reporting services.
* Designed and implemented data warehouse solutions incorporating Clinical Document Architecture (CDA) and Consolidated Clinical Document Architecture (CCDA) standards for healthcare data interoperability.
* Modeled the logical and physical diagram of the future state, Delivered BRD and the low level design document using ER Studio.
* Participating in the Analysis, Design and Development Phases of report development, performance tuning and production rollout for every report of the Information Technology Department.
* Querying the databases, writing test validation scripts and performing the System testing.
* Created 3NF business area data modeling with de-normalized physical implementation of data.
* Documenting all data mapping and transformation processes in the Functional Design documents based on the business requirements
* Creating Technical specifications documents based on the functional design document for the ETL coding to build the data mart.
* Creating data trace map and data quality mapping documents, Performing Data Profiling and Data Quality.
* Utilized data modeling tools such as ER Studio Data Architect and Oracle SQL Developer Data Modeler to design and document healthcare data models compliant with CCDA and HL7 standards.
* Owning the assigned reports, working on them and updating the Report Development Scheduler for status on each report.
* Experienced in working with star schema and snowflake schema to develop MOLAP cubes using MS SQL Server analysis services (SSAS).
* Actively involved on a daily basis with lead Data Warehouse developers to evaluate impact on current implementation, redesign of all ETL logic.
* Responsible for making the report available for scheduling or viewing on demand.
* Contributed to QA testing reports that determined product quality and release readiness.
* Contributed to automated software test plans, cases and scripts to uncover, identify and document software problems and their causes.
* Conducting weekly meetings with Technical Experts to Improve Report Performance and performed System testing and ultimately exporting reports in multiple formats including MS Word, Excel, CSV and PDF.

**Tools Used**: ER Studio Data Architect 9.6, Power BI , Oracle SQL Developer, MS SQL Server, Informatica 9.6.1, Rally.

#  Ventois Inc. , Client: T-Mobile, Bothell, WA Sep 2015 – May 2016

**Role: Data Modeler**

**Project Overview:**T-Mobile US, Inc. is a major wireless network operator in the United States. The German telecommunications company Deutsche Telekom (DT) is its majority shareholder, through DT's holding company T-Mobile International AG. Its headquarters are located in Bellevue, Washington, in the Seattle metropolitan area. T-Mobile is the 3rd largest wireless carrier in the United States with 65.5 million customers as of Q1 2016.

**Responsibilities**:

* Working as a Data Architect as part of IDW (Integrated Data Warehouse) project under Agile DevOps methodology
* Working on different subject areas like Party, Account, Line of Service, Finance and Product
* Working with Business Analyst to gather business attributes as part of the report and creating LDM based on the business attributes using Power Designer 16.5
* Review LDM with Lead Data Architects and then review with entire team
* Creating PDM and Source to Target Mapping documents and review with Lead Data Architects
* Generating DDLs using Power Designer and executing them on Teradata and Hadoop
* Data Profiling of source using Oracle and Hue(Hadoop/Hive UI) and supporting developers by testing the target on Teradata and Hadoop
* Actively participate in backlog grooming session with scrum master, product owner and solution owner
* Created a standard document for the client to list out steps on “How to create DDL for Teradata and Hadoop using Power Designer”
* Trained junior data modelers on data architecture standards and data modelling standards
* Using Agile Central (Rally) to enter tasks and associated hours for each task
* Using GitHub and Accurev to actively manage and promote DDLs
* Working with different source systems like RPX, Samson, Chub, Ericsson etc.

**Tools Used:** Power Designer 16.5, Oracle SQL Developer, Microsoft SQL Server 2008, Hue, Teradata SQL Assistant, Rally, Confluence, AccuRev.

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#  Tech Mahindra, Pune, India June2012 – July 2014

 **Role: Data Modeler**

 **Project Overview:** Mahindra & Mahindra is a leading automobile manufacturing company in India. The company wanted to develop a Data Warehouse and a Data Mart which would facilitate ease of analyzing their sales. There are multiple sources from which the company can get their data hence a number of platforms were used.

**Responsibilities**:

* Responsibilities included gathering and preparation of requirements, functional specifications, technical specifications and the design of the database.
* Prepared the test cases, test plan for testing the Programs.
* Testing responsibilities included unit testing, integration testing, and business acceptance testing.
* Analyzing sell patterns and signifying techniques for upgrading and created stored procedures and maintained internal applications.
* Modification of all databases via indexing of tables, MS SQL Server 2000 design parameters and stored procedures SQL code optimization.
* Provide expertise and recommendations for physical database design, architecture, testing, performance tuning and implementation.
* Identified and determined security violations, the causes of it and recommend corrective actions to ensure data security.
* Experience in off-hours on call support, handling resolution of issues on business critical production.

**Tools Used**: SQL server 2000,MS SQL server Analysis Manager, Informatica Power Center, SQL Navigator, Erwin, Windows NT, Crystal Reports.

#  AT&T Telecom(Tech Mahindra Office), Pune, India November 2010 – June 2012

 **Role: Data Analyst/Data Modeler**

**Project Overview:** AT&T T1 Integrated Access Solutions is a complete solution that allows you to combine— over a T1 access line—local service, Dedicated Internet Access, Frame Relay, and CPE. This project involves combining the services that already exist in a package for potential cost savings and increased efficiency.

**Responsibilities:**

* Gathered Business Requirements through brainstorming sessions on global calls.
* Introduced Agile and RUP methodologies to reflect liquid nature of front-office improving time to-market
* Created Process Flow diagrams, Use Case Diagrams, Class Diagrams and Interaction Diagrams using **Microsoft Visio** and **Rational Rose**.
* Conducted GAP Analysis between the existing projects and the proposed project to map the systems and evaluate their utility toward the new project and established documentation for agile methodology for implementation with a very water-fall-centric development team.
* Analyzed and Documented Business Requirement Document (BRD), Functional Specification Documentation, and System Requirement Documentation, using UML methodologies and transformed project data requirements into project data models using Erwin.
* Effective client co-ordination to update the process change and network enhancements using Erwin.
* Worked at conceptual/logical/physical data model level using Erwin according to requirements.
* Data driven approach building out 50 plus table structures containing over 1200 attributes.
* Designing and Planning of Optical Transport circuit’s models (T3, T1 and DS0) on SONET for new Customer Broadband Links.
* Coordination with other operators in America and Canada (BELL, VERIZON, MTS) for cross border orders.
* Logged defects into QC while doing Functional Testing and followed through the process until the defects were closed.

**Tools Used:** Windows Server 2003, MS SQL 2000, Erwin, AT&T enterprise applications.