**Madhusudan Tamrakar**

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Experienced Business/Data Analyst/Quality Analyst with a demonstrated history of working in Healthcare, and Banking industry. Skilled in Oracle Database, SQL, Informatica, Microsoft Word, Business Intelligence, Reporting & Analysis, and Visio. Strong research professional graduated from Texas A&M University.

**PROFESSIONAL SUMMARY:**

* Over 6 years of IT experience in the field of **Data/Business Analysis/Quality Analysis** and **ETL**.
* Strong experience in Business and **Data Analysis**, **Data Profiling**, **Data Migration**, **Data Conversion**, **Data Quality**, and **Data Integration**.
* Experience in **Extraction**, **Transforming and Loading ETL** data, creating mappings/workflows to extract data Excel file, other databases and **Flat File** sources and load into various Business Entities.
* Experience in creating Star & Snow-Flake Schemas, **FACT** and **Dimensions Tables**.
* Expertise in Writing, Executing and Maintaining **Test Plans**, **Test Strategy**, **Test Procedures**, **Use Cases**, **Test cases**.
* Experience in various phases of **Software Development Life Cycle** (analysis, gathering requirements, design) with expertise in documenting various requirement specifications, functional specifications, test plans, source to target mappings, and **SQL joins**.
* Experience in parsing data from **JSON** files and loading into databases as requested by the business.
* Good experience on database query tools such as TOAD, SQL Navigator, and SQL Assistant.
* Experience on **UNIX** commands and **Shell Scripting**.
* Good understanding of **Relational Database Design**, **Data Warehouse/OLAP** concepts and methodologies.
* Experience in Design and optimization of **OLTP**, **OLAP** tools
* Implemented optimization techniques for better performance on the ETL side and on the database side.
* Highly proficient on the phases of **Agile** and **Scrum** Methodology.
* Good Team Player with excellent communication, analytical, verbal and writing skills along with strong management, organizational and mentoring skills.

**TECHNICAL SKILLS:**

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| **Languages:** | Python, R, JavaScript, HTML SQL, Visual Basic, UNIX, Shell Scripting, VBA |
| **Reporting Tools** | Oracle Reports, MS Excel |
| **Fundamental Statistics** | Modeling, Forecasting |
| **Python Programming** | Python 3, NumPy, SciPy, Pandas, Matplotlib, API Interactions, Seaborn, Jupyter Notebook |
| **ETL Tools** | Informatica Power Center 10.x/9.x |
| **Data Modeling Tools** | MS Visio, Tableau |
| **RDBMS/Data Management** | Oracle 8.0/9i, DB2 8.0/9.0, IBM Netezza |
| **Operating Systems** | Unix 6.0, IIS 5.0/6.0/7.0 |
| **RDBMS Query Tools** | SQLPLUS, TOAD, Oracle SQL Developer, MongoDB, MySQL, PostgreSQL, PostgreSQL/pgAdmin |
| **Methodologies** | Agile/Scrum, Rational Unified Process, Waterfall methodology. |
| **Other Tools** | SharePoint, MS Office, Business Intelligence Studio, VersionOne, GitHub, Git Bash |
| **Front-End Web Visualization** | HTML, CSS, Bootstrap, Dashboarding, JavaScript Charting, Geomapping with Leaflet.js |

**PROJECTS:**

**Data Exploration, Cleanup** **& Analysis** | Written link to [GitHub](https://github.com/mtamrakar656/World-Happiness-Project)

This project displayed locating data, hypnotizing, and generating questions to explore. Followed by merging and cleaning the data and visualizing the story through charts and graphs while supplying the implications and summarization of the findings.

* Role: Project Lead and Contributor
* Tools: Jupyter Notebook, Pandas, Python, Matplotlib, CSV, Excel, Power Point, Git Bash, Git Hub, Visual Studio

**Data Engineering SQL Alchemy ETL** | Written link to [GitHub](https://github.com/mtamrakar656/Marriage-and-Divorce-Rates)

This purpose of this project was to perform ETL using multiple data sources. The components included Extraction by pulling and reading the data into Pandas Data Frame, then Transformed by selecting desired columns, cleaning, and filtering for each data set. Lastly, Loaded the data into PostgreSQL joining together by using a connection with an engine to export the data from Pandas into the SQL tables into a Schemata file.

* Role: Project Lead and Contributor
* Tools: Jupyter Notebook, Pandas, Python, CSV, Postgres SQL, Word, Git Bash, Git Hub,

**Story Telling with Data Visualization** | Written link to [GitHub](https://github.com/mtamrakar656/Machine-Learning-and-Visualization)

Investigation on data analysis of the benefits of hosting the Olympic games through cost analysis and geomapping. After conducting CRUD and ETL steps, mapping the data out incorporating drop downs, menus, and text boxes on heatmaps while using markers and overlays to tell the story visually.

* Role: Contributor
* Tools: Jupyter Notebook, Pandas, CVS, Postgres SQL, Power Point, Git Bash, Git Hub, JSON, API, Python, Flask, HTML, CSS, JavaScript, D3, Web Scraping, Leaflet, Plotly

**EDUCATION:**

Data Analytics and Visualizations Certificate 2021

 John Hopkins University

Bachelor’s in Science 2013

 Texas A&M University - Commerce

**Professional Experience:**

**General Dynamics Albany, NY**

**Role: Senior Quality Assurance Engineer Sep 2020 – Current**

**Provider Enrollment Portal**

The New York State Department of Health (NYSDOH - eMedNY) is migrating from legacy application to newly designed electronic Provider Enrollment application which includes provider eligibility, verification, and adjudication of the Provider, Associates, and Affiliates.

**Responsibilities:**

* Discuss project Roadmap with senior leadership and assign tasks to various team members.
* Prepared Test plans and executed end to end test cases for various modules of the Provider enrollment application.
* Executed batch job runs using COBOL commands in Mainframe.
* Validate the batch process, and data ingestion on daily basis and provided feedback to NYSDOH and team after validation.
* Developed Test Cases after analyzing the TDD’s.
* Verified processes and create documents to enroll (Providers) new members into new Provider enrollment Plans.
* Designed Test cases, test plan based on crosswalk.
* Involved and tracking the defects using and JIRA
* Used SQL to perform backend testing.
* Participated in requirements, Test Scenarios, and Test Conditions walkthroughs and reviews
* Participated in the meetings to follow up on Defects/Issues
* Performed black box testing including smoke, regression, integration and functional testing.
* Performed GUI testing manually.

**U.S. Bank St. Louis, MO**

**Role: ETL Developer Feb 2020 – Mar 2021**

**Responsibilities:**

* Collaborate with business analysts in the process of requirements gathering for various application specific databases.
* Work with users to identify the most appropriate source of record required to define the asset data for financing.
* Perform data profiling in the source systems that are required for financing.
* Document the complete process flow to describe program development, logic, testing, implementation, application integration, and coding.
* Involved in creation of use cases using UML and managed the entire functional requirements life cycle using Rational Unified Process.
* Work closely with Data Steward team and business customers to resolve data quality issues.
* Conduct GAP analysis and data mapping to derive requirements for existing system enhancements.
* Design and customize data models for Data warehouse supporting data from multiple sources on real time.
* Apply data cleansing/data scrubbing techniques to ensure consistency amongst data sets.
* Develop logical data and physical data models to capture current state/future state data
* Define appropriate security roles related to data, securing, provisioning, and auditing the security of the data within the domain of stewardship, and define named individuals for each required role.
* Define the Primary Keys (PKs) and Foreign Keys (FKs) for the Entities, create dimensions model star and snowflake schema's using Kimball methodology, and design them using ERwin 7.2.
* Develop complete process flows for ETL including landing, staging, and loading data to target databases such as Oracle, Netezza using shell scripting, SQL, Informatica, and scheduler/Automation tools (**Appworks**)
* Facilitate JAR/JAD sessions to determine data definitions and business rules governing the data and facilitate review sessions with subject matter experts (SMEs) on the logical and physical data models.
* Apply data naming standards, create the data dictionary, document the data model translation decisions, and maintain the DW metadata.
* Write PL/SQL Stored Procedures, functions, views, packages and triggers to implement business rules into the application.
* Participate in data loading and data migration. Use **SQL\*Loader** to load data from Excel file into temporary tables and develop PL/SQL program to load data from temporary table into base tables.
* Develop queries using PL/SQL and many stored procedures to validate.
* Create and maintain database objects such as tables, views, indexes, sequences, database triggers, stored procedures, etc.
* Use data profiling tools and techniques to ensure data quality for data requirements.
* Collaborate with the QA team to work on **SIT and UAT**, maintain quality procedures, and ensure that appropriate documentation is in place.
* Develop and execute queries using SQL for reporting.

**Environment:** *PL/SQL, TOAD, Informatica Power Center 10.2.0 HotFix/9.6, SQL Developer, Windows 10, TOAD 12.8.0, Oracle 11g/12c, Star and Snow-Flake schemas, Flat files, MS Excel, IBM Netezza, Informatica, Appworks (Automic), VersionOne*

**New York State Dept. of Health (Medicaid Data Warehouse) Albany, NY**

**Role: Business Data Analyst July 2017 – Dec 2019**

**MMIS Procurement Strategy**

The New York State Department of Health (NYSDOH) utilized consulting services related to its Medicaid program and systems. NYSDOH is in the process of reassessing and refining strategies for the development of its Medicaid Management Information Systems (**MMIS**), and of ensuring the business functions and systems align with the Medicaid Information Technology Architecture (**MITA**) framework. We assisted with the completion of the MITA State Self-Assessment, identifying and analyzing **MMIS procurement** alternatives, and providing overall guidance on NYSDOH’s **MMIS** strategy. As a part of procurement planning, we provided **financial** guidance including reconciliation of the **budget**, and negotiation with large vendors for procurement.

**Responsibilities:**

* Gather Business Requirements from the Business users, Subject Matter Experts (SMEs) and document the requirements in the **BRD**.
* Involved in gathering, documenting and verifying business requirements.
* Organized **JAD Sessions** to collect requirements from system users and prepared business requirement that provided appropriate scope of work for technical team to develop prototype and overall system.
* Involved in multiple projects such as **TMSIS, MAPP, VBP** to analyze and facilitate Medicaid data and reimbursement process.
* Supported the development of training curriculum, matrices, and materials to conduct the **MITA** Education and Training. This includes creating a **MITA** Training Schedule with dates, times, and participants as well as arranging the logistics for the meetings.
* Co facilitated workshop sessions for intermediate business and functional requirements and documents resulting decisions.
* Participated in Daily **Agile Scrum** “Stand-up”, Biweekly Sprint Planning and Retrospective Sessions and update the team on status of upcoming **User Stories**.
* Used MITA Tracer Tool to gather information for the SS-A during the Workshops.
* Worked with client to gather Business/Technical Requirements, Approval of CR (Change request), Design and Implementations for State MMIS.
* Involved in Financial reconciliation of allocated federal and state budget and expenditure allowing in mitigation of extraneous vendor expenses.
* Gained extensive experience in designing/modifying the **CICS** screens for various areas such as Enrollment, Billing, Provider Record and Reimbursement Status in MMIS.
* Performed maintenance and configuration changes in various MMIS application modules such as: pricing tables, benefit and deductible accumulators, CMS rate tables, Member management plan, Subscriber/ Member modules, building for qualifier groups, and the billing and claim application environments.
* Served as a liaison between the internal and external business community (Claims, Billing, Membership, Capitation, Customer service, membership management, provider management, advanced Healthcare management, provider agreement management) and the project team.
* Instituted the Provider Service Team to provide billing, coding and procedural assistance to Doctors, Hospitals and Billing Companies during a provider-initiated call.
* Involved in creating customized interactive reports and dashboards, report scheduling using Tableau server.
* Administered user, user groups, and scheduled instances for reports in Tableau.
* Created stories in Tableau using Story functionality.
* Use Agile systems and strategies to provide quick and feasible solutions, based on Agile system, to the organization.
* Work in Agile, scrum, and sprint environment in order to change the requirements and features set.
* Troubleshooting and problem resolution of provider reimbursement utilizing reimbursement policies, methodologies and standards.
* Performed **Data Analysis, writing SQL queries** for Testing and Troubleshooting against Data Warehouse.
* Executing system test scripts on query output and quantifying, analyzing, and summarizing test results.
* Identified end to end requirements for all systems and business units that may be impacted by the project.
* Developed requirements integrating Use Case diagrams and designed the testing process flows.
* Established and maintained traceability matrix until business requirements were signed off.
* Conducted walkthrough and lead work sessions.
* Using **MS-Visio** analyzed business requirements and process through Use Cases, Class, Sequence, and Activity diagrams, and adapted **UML** standards to define modularized Data Process Models.
* Ensured Use-Cases were consistent and covered all aspects of the Requirements document.
* Developed a Business Acceptance testing strategy and plan.
* Created test files and analyzed test results using **MS-Excel.**
* Worked with Defects and involved in Defect Triage and prioritization.

Environment: **SQL,** Windows, XML, MS Office (MS Word, MS Excel, MS PowerPoint, **MS Visio, MS Project**), **Tableau** Desktop, **MITA, MMIS**

**U.S. Army Ft. Meade, MD**

**Role: Automated Logistic Specialist Mar 2016 – Current**

Primarily responsible for supervising and performing management or warehouse functions in order to maintain equipment records and parts.

**Responsibilities:**

* Establish and maintain stock records and other documents, such as inventory, material control, accounting and supply reports
* Review and verify quantities received against bills of contracts, purchase requests and shipping documents
* Unload, unpack, count, segregate, palletize and store incoming supplies and equipment
* Construct bins, shelving and other storage aids
* Simplify and standardize the collection and use of maintenance data
* Raise the quality and accuracy of performance, cost and parts data through improved maintenance management

**Nova Chemicals Pittsburgh, PA**

**Role: Business Systems Analyst/SharePoint Developer Mar 2015 – Jun 2017**

**Extranet/Intranet Web Application**

System Enhancement Request Form (SERF) enhances existing functionality in intranet sites providing users dynamic interface and create custom authentication method for extranet sites.

**Responsibilities:**

* Involved in complete Life Cycle including **Analysis, Design, Development** and **Testing**.
* Created Sites and Sub-sites within the site collection and accordingly created new Site Permission levels and Groups for SharePoint 2010 site.
* Utilized Central Administration Site to manage corporate server farm and created /extended web applications to isolate SharePoint sites.
* Configured to grant the rights for the users in **Active Directory** to appropriate groups/roles and implement them with SharePoint site.
* Worked on List templates to move list content from Pre-Production site to Production site.
* Exported SharePoint designer workflows from Development Area and imported them to Production site.
* Utilized **Out-Of-Box Web Parts** in SharePoint 2010 for multiple applications.
* Used **Content Editor Web Part** to insert text, images, hyperlinks and documents and changed the look and feel of content by editing web part properties.
* Utilized **CEWP** with JavaScript for hiding the content and inserting images with hyperlinks within the web part.
* Worked on creating adding custom columns to content query web part, created feature for Custom **CQWP** with **XSLT** styles implementation.
* Developed complex custom workflows using the SharePoint Designer and associated to InfoPath forms to automate current business activities such as document review and approval, issue tracking, and auto generate email etc.
* Created custom solution using **Visual Studio** for **Forms Based Authenticated** users to login to sites.
* Installed solutions and activated session state using PowerShell scripts.
* Created pages used J**avaScript**, **ECMA** script to retrieve list contents in table form.
* Utilized **Advanced Search Web Part** to search documents using specific criteria by mapping and crawling properties from Central Admin.
* Utilized CQWP to display documents based on upcoming reminder date and document owner.
* Created manual start Reusable workflows and associated them to different libraries to copy items from one library to other based on revisions and approvals completed by user.
* Created **HTML** pages applying **CSS** styles to change the look and feel.
* Created and managed Site Columns, Lists, Libraries and Content Types with SharePoint 2010 from User Interface.
* Created different views in the lists and libraries using filters and Group by properties.
* Created custom Page layouts associated with site Content Types using SharePoint designer 2010 and changed the default page layout.
* Customized InfoPath form from SharePoint 2010 list and changed the look and feel of form according to the requirements.
* Extensively used various rules like Validation, Formatting and Actions and applied filtering on the InfoPath fields to limit the data submitted through the forms according to the given requirements.
* Used Form load property to switch the views according to the conditions based on User Information and to set the field values.
* Created data connections between the InfoPath fields and the SharePoint list so as to extract the data from custom SharePoint lists and User Information list.
* Created custom permission levels in SharePoint 2010 site to give access to the users in group accordingly.
* Created Site Pages and worked as an administrator assigning SharePoint permissions to users in the group.
* Extensively worked on footer, header, left navigation and global navigation.
* Used SharePoint Designer 2010 for branding and customizing SharePoint Server 2010 by modifying Master Pages.
* Created custom site Themes, Master Pages and Content Page Layouts implementing the corporate branding to web site using Cascading Style Sheets (**CSS**).
* Extensively used CSS of different types in designing the web pages for the application.
* Changed the look and feel of site pages by changing site themes and page layouts.
* Created documents in document library and assigned hierarchal permission levels for the users in the group.
* Debug the code, code review, bug tracking, bug fixing were the major tasks accomplished.
* Responsible for Technical specification preparation and presentation slides and End User Training.

**Environment:** *Microsoft SharePoint Server 2010, Visual Studio 2010, jQuery, jQuery UI, JavaScript, SQL Server, HTML, CSS, InfoPath Designer, SharePoint Manager, SharePoint Designer, Windows PowerShell, C#, VB*