**NITIN TRIPATHI**

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**Professional Experience:**

* 13+ years of IT experience, with a focus on Data Engineering, Business Intelligence, and Big Data technologies across pharmaceutical, healthcare, retail, and telecom domains.
* Proven expertise in ETL processes, data modelling, data warehousing, and cloud-based data engineering using AWS (Redshift, S3, EMR) and Big Data tools (Spark, Hive, Hadoop).
* Strong experience in end-to-end data pipeline development, including requirement gathering, design, implementation, and optimization for large-scale data systems.
* Skilled in data migration, data quality management, and building high-performance data warehouses for analytical reporting and decision-making.
* Adept at working with stakeholders to design and implement scalable data solutions, ensuring compliance with GxP regulations and FDA guidelines.

**Summary:**

* ~13 years of IT industry experience in the Domain of Life Science & Healthcare, Retail, and Telecom.
* Experience in requirement gathering, feasibility analysis, proposing solution, document design, walk thru with development team and providing end to end solution
* Experience in analysis, design, development, deployment, testing and production support of Business Application Systems for various domains.
* Defined SLAs and Prepared Application Understanding, Technical & Functional Specification Documents, and Disaster Recovery Plans for the supported applications.
* Having sound knowledge of all GxP Regulations, FDA Guidelines in Life science & Healthcare area.
* In-depth understanding of the Supply Chain Planning and Manufacturing for life cycle & Proven expertise in Supply Chain back orders, forecasting and Demand process, Quality and Manufacturing reporting, traceability & serialization process. Experience in designing, developing, deploying, and enhancing hi-visibility computer programs, analytics, dashboards and reports.
* Support business users during acceptance testing, production migration, and post-go-live support.
* Adept at rapid prototyping and deployment of stable and maintainable BI solutions & hands-on experience with data-related programming and other high-level languages preferred.
* Adept at performance optimization and tuning for servers, queries, and business intelligence reports and Data Analytics. Proficient Driven business intelligence professional managing areas such as data mining, database management and report development. Meticulous and hardworking with a disciplined and methodical approach and experience in performance optimization client in technology tools such as **Informatica ETL, Cognos BI, SAS, Power BI, Qlik and Big data technologies**.
* Good understanding Data Processing Tools with Big Data Analytics tools Operation Data platform, Hive, Spark, Scala, Py-Spark, Apache Hadoop on Amazon EMR - Big Data Processing**.**
* **Hands on Experience in Supply chain application and process using Blue using Yonder JDA application to manage the actual/daily Sales, forecasting and Demand process & in its financial process.**
* Experience in end-to-end implementation in Cognos BI and SAS VA and Informatica, AWS Redshift, Oracle, SAS BI & DI.
* **Technical expertise in Data warehouse (Relational, Dimensional Relational (DMR) &amp; OLAP) modelling and development, schema (start and snowflake), logical data marts &amp; table structure (fact and dimension) using Cognos data modelling tools Cognos Transformation and Framework Manager.**
* Strong experience in implementing BI solutions in confidential AWS Redshift; worked on various projects to migrate from on premise database to Redshift, RDS, S3.
* Hands on exposure of leading QlikView/Qlik Sense, SAS VA as technical lead and coordinating with business owners and offshore development team, managing projects, data profiling/analysis, designing application architecture, improvising design, developing optimized data model, implementing data security on data/dashboard level and supporting/maintaining existing dashboards.
* Expertise in Informatica 10.1.1 and hotfix with its PowerCenter client tools-mapping designer, repository manager, workflow manager and monitor, Session, mappings using different tools and techniques, extraction, transformation and loading (ETL) data from various sources into Data warehouses and Data marts using informatica power Center.
* Designed Data Marts and Data Warehouses using dimensional modelling techniques as well as ETL processes to populate them from Source.
* Responsible for database schema design, extensive T-SQL development, integration testing and other projects that may be necessary to help the team achieve their goals & performed complex SQL queries on large datasets using Oracle.
* Identify ways to increase efficiency of production support and find solutions that allow operations to better do their job without involving development resource time.
* Assist in production of Fixed Income management and decision support reporting and models, with a focus on continuous improvement on process and data.
* Research and propose software programs that are compatible to the future technologies.
* Design, develop and implement enterprise data warehouse and DataMart models, logical data model, and physical data model. Analyze requirements, program and configure warehouses of database information, and provide support to warehouse users.
* Review data mart/warehouse deliverables and suggest and co-create standards and guidelines.
* Perform data quality and profiling activities, advise on data quality issues, and provide analysis on data collection, mapping, aggregation and balancing functions.
* Develop mappings, define workflows and tasks, monitor sessions, export and import mappings and workflows and perform backup and recovery. Liaise with business users and enterprise architects as needed.
* A dept at performance optimization and tuning for servers, queries, and business intelligence reports and Data Analytics. Proficient Driven business intelligence professional managing areas such as data mining, database management and report development. Meticulous and hardworking with a disciplined and methodical approach. Exceptional skills in project management, problem-solving and verbal and written communication. Adept at performance optimization client in technology tools such as Informatica ETL, Cognos BI, SAS, Power BI and Tableau. Well-organized and resourceful with a thorough understanding of business operations.
* **In-depth understanding of the Pharmacy Manufacturing life cycle. Proven expertise in Supply Chain back orders, forecasting and Demand process, Quality and Manufacturing reporting, traceability & serialization process.**
* **1.5 years in Central Govt of India in (NRSC) Lythem programming and Mosaic Analytics for Satellite systems in IRNSS.**

**Certifications & Others:**

* ELN System Administration Training Course
* AWS Cloud Practitioner Essentials
* Collibra Data Intelligence and Data Governance from Collibra University
* Ledger journal article publish in aci Scopus for ‘XAI\_A NOVEL EXPLANABLE AI-BASED DEEP LEARNING FRAMEWORK FOR STRESS IDENTIFICATION’ - in Process
* Design Patent for **Drug Reaction Monitoring Tool** filed in Govt of India

**Education Details:**

* Masters in computer science and application, INDIA -2008
* Bachelors in physics and Maths, INDIA-JRF from IIT, Kanpur, UP, India .

**Skills & Others:**

**Key Skills:**

* **Data Engineering Tools:** Informatica, Apache Spark, PySpark, Hive, Hadoop, AWS Redshift, S3, EMR.
* **Programming:** Python, SQL, PL/SQL, Scala.
* **Data Modelling:** Dimensional modelling, star and snowflake schemas, logical and physical data modeling.
* **Databases:** Oracle, SQL Server, Amazon Redshift.
* **Cloud Platforms:** AWS (Redshift, S3, RDS, EMR), SAS Visual Analytics.
* **Visualization Tools:** Power BI, Qlik Sense, Tableau, SAS VA.
* **Big Data:** Building ETL pipelines over data lakes, integrating structured and unstructured data, and optimizing Spark jobs for large datasets.

**Technical Expertise:**

* **ETL Development:** Expertise in developing, optimizing, and managing ETL workflows using Informatica PowerCenter and custom Python-based pipelines.
* **Data Warehousing:** Experience in building and maintaining enterprise data warehouses and data marts with AWS and Oracle.
* **Big Data Processing:** Hands-on with Apache Spark, PySpark, and Hive for distributed data processing, data transformations, and analytics on large-scale datasets.
* **Cloud Data Engineering:** Migrated on-premise databases to AWS Redshift, designed scalable data pipelines, and implemented data lakes for real-time and batch processing.
* **Data Governance:** Ensured data quality, security, and compliance by implementing robust frameworks and adhering to **FDA guideline**s.

**Areas/Applications:**

- Life Sciences and Health Care, Telecom

* Involved in requirement gathering with client/stakeholders to understand Life Sciences and Health Care specific requirements
* Gathering instrument information which need to be integrated
* Study existing application landscape and analyse business requirements
* Perform feasibility study of the requirements
* Requirements walk thru with development team, explain modules and provide assistance throughout project life cycle
* Document design, application deployment instruction, verify stability & portability and security
* Troubleshooting performance issues, identify root cause with the vendor and infrastructure group and carrying out the impact analysis before developing the project
* Environment using agile design to deliver project teams in a fast-paced work environment in working with 25+ packages for data extraction, generating the reports for all senior level management and other business users.
* Built and maintained the supply chain and manufacturing area applications in multiple technologies, that is operating around 40+ BI & data warehouses applications which is providing the end customer benefits.
* Interacted with users and stakeholders to deliver the result according to their requirements following coding standards and delivering on time
* Recommended architectural changes in existing application/System for upgrade.
* Recommended multiple process improvement processes based on organization requirements.
* Carrying out the impact analysis before developing the project.

**Applications:**

* Life Science - Supply Chain, Inventory and Finance &Quality and Manufacturing
* Telecom – AMS, Financial Reporting, Telecom N/W data analytics system

**Professional Experience:**

**Client: AbbVie Inc. Chicago, IL Oct 2021 to till date**

**Role: Senior Data Architect**

**Project: Supply Chain Planning & Manufacturing application support and maintenance, enhancement.**

**Project Detail:**AbbVie Inc. is a research-based biopharmaceutical company that discovers, develops and commercializes innovative medicines in areas of unmet medical need. In just over 25 years, AbbVie has become one of the largest biopharmaceutical companies in the world, with a rapidly expanding product portfolio and a growing pipeline of investigational drug. The project involves the end-to-end) support and maintenance activities for supply chain and Manufacturing applications for providing the solution for Forecast, Demand, budgeting and planning, Sales Analysis, inventory visibility, B2B system management and tracking system.

This includes Sales, Forecasting and Demand Planning Data, QA, manufacturing and Inventory data & Analytical Reporting application and tools are utilizing to populate the front-end of various applications to representation of data & KPIs, due to this reason stakeholders can take an appropriate decision based on this analytical reporting, which is saving the business timings and utilizing for future growth for their business because **it is a large collection of business data used to help an organization can make decisions for futuristic growth and maintain the company growth as well as to help the human live & humanity and their health**. Working in Design, develop and implementation enterprise data warehouse and DataMart models, logical data model, and physical data model. Analyses requirements, program and configure warehouses of database information, provide support to warehouse users. Review data mart/warehouse deliverables and suggest and co-create standards and guidelines. Perform data quality and profiling activities, advise on data quality issues, and provide analysis on data collection, mapping, aggregation and balancing functions. Develop mappings, define workflows and tasks, monitor sessions, export and import mappings and workflows and perform backup and recovery. Liaise with business users and enterprise architects as needed.

**Roles & Responsibilities:**

* Design, implement, or operate comprehensive data warehouse systems to balance optimization of data access with batch loading and resource utilization factors, according to customer requirements. Handle LIMS Audit Trail and response to Internal and FDA Audits using Smartsheet.
* Designed and developed ETL pipelines for supply chain and manufacturing data, integrating data from various source systems into AWS Redshift. And also designed Data Marts and Data Warehouses using dimensional modelling techniques as well as Informatica ETL processes to populate them from Source.
* Interacted with users and stakeholders to deliver the result according to their requirements following coding standards and delivering on time.
* Requirement analysis, defining requirement as per existing module or defining module if required, requirement walk through with development team, explain modules and provide assistance throughout project life cycle.
* Built high-performance data warehouses and optimized data models to enable business intelligence reporting and KPIs visualization.
* Led the building of various layers of data warehouses, including Data Staging Area (DSA), Enterprise Data Warehouse (EDW), and data marts using Informatica PowerCenter and integrating technologies like AWS Cloud Operation data platform -EMR and Oracle, redshift.
* Designed and implemented ETL processes, optimizing data flow from various source systems into data warehouses. This involved complex SQL coding, performance tuning, and ensuring data integrity during transfers.
* Responsible for Extensively used SAS on UNIX platform to develop custom business solutions.
* Extracted huge volumes of data and uploaded it into SAS Visual Analytics in ledger table and created dashboards.
* Used SAS Macros, Proc Univariate, Proc Summary, proc means, Automatic Variables and Proc options with LIST, OUT, MISSING options to perform various analysis using analytics.
* Leveraged Apache Spark for real-time and batch data processing, reducing job execution time by 30%.
* Building ETL scripts over core data lake to prepare data for data scientist’s analysis (analytical base table on sales data), validating extracts, spark optimization.
* Wrote technical knowledge article stored in SNOW for clients and teams to address unique, detailed processes allowing problems to be resolved more efficiently.
* Collaborated with business stakeholders to provide insights through Power BI dashboards and Cognos BI.

**Technologies:** SAS, AWS cloud, Redshift & Oracle (PL/SQL), Py-Spark, Informatica, Cognos BI Reporting, SAS VA and Qlik Sense for data visualization

**Client: F. Hoffmann La Roche, Switzerland, Basel, Europe & USA May-2016 to Oct-2021**

**Role: Senior Data Engineer**

**Project: Quantum Enhancement and Development Project**

**Project Detail:** Roche is European pharma company & established in 1886; It is one of the country’s oldest Pharma companies At Roche, personalized healthcare – also known as PHC – is a key area of focus, combining, pioneering science, data, analytics and technology to advance new discoveries and improve patients’ lives. The project involves the analysis and enhancement of Forecasting and Planning, The Quantum application to capture and maintain the data for research and costing values for the new market.

By using data, analytics and technology across R&D and the care continuum, we are drawing closer to our goal of improving lives and advancing better health at a lower cost to people and to society. The project involves the analysis and enhancement of Forecasting and Planning, The Quantum Project to capture and maintain the data for research and costing values for the new market. The application provides features to analyze the current situation for new research and what would be the future cost for global label. The application also provides features to generate various reports.

**Roles & Responsibilities:**

* Designing and Creating ETL processes to move new data sources into ODS, OWB experts creating for various purposes including ETL and dimensional model (type1, type2 dimensions, fact – Kimball model), performing analysis of source data in order to create/clarify requirements and design flows and dma schemas, unit testing, assisting testing team in their tests, documentation creation, technical leading of younger team members in they every day work, 3rd level support, incidents solving, processes optimization. Acts as liaison between Bayer and vendor to address various system issues. Evaluates product enhancements and capabilities, in addition to implementing upgrades as required.
* Developed a multi-source data reporting system for healthcare analytics, facilitating better patient care metrics and compliance reporting.
* Automated key financial reports that cumulatively saved over 200 hours of manual work annually for the accounting department.
* Responsible for continuous improvement of system processes, including the redesign of data aggregates, optimization of ETL components, and enhancement of overall system performance to meet business needs.
* Verifying of migration processes, development of new reporting and migration procedures, unit test conduction, technical documentation writing, tuning of PL/SQL database procedures, dividing and monitoring of tasks within system dedicated sub team, assisting team colleagues in the design, development and solving technical issues, designing and implementing various ETL processes (Informatica PowerCenter 10.4 & 10.5).
* Implementing small enhancements in the current applications. Communication and co-ordination with different stakeholders for the same.
* Developed data models and implemented data pipelines using SAS DI and Informatica for supply chain planning systems.
* Migrated legacy systems to modern data warehouse architectures, improving query performance by 25%.
* Created and maintained dimensional models (star and snowflake schemas) for business analytics.
* Optimized SQL queries and ETL processes to handle large volumes of data efficiently.

**Technologies:** Oracle (PL/SQL), Informatica, Cognos BI Reporting, Qlik Sense for data visualization, Python, Cognos Planning

**Client: DIRECTV Inc., California, US Mar-2015 to May-2016**

**Role: Data Engineer**

**Project: Nautilus, Development Maintenance and enhancement project**

**Project Detail:**DirecTV Stream is a family of streaming multichannel television services offered in the United States by DirecTV. It is the streaming television counterpart to the traditional DirecTV satellite television service. DirecTV is providing the facility to Video on demand and Top-rated live TV channels and thousands of On Demand titles; Regional Sports Networks with CHOICE™ package and above. According to the business requirements to get analytics/insights of their data for growing their Business, commanding and processing business strategy using Big Data Analytics and the data is received from AMS Reporting using SAS and SAS Visual analytics (SASVA) and Cognos. The project involves the analysis and enhancement of USA based telecommunication channels, expenses and subscribers’ details, used to manage & monitor the details of projects undergoing in Direct-V. The large amount of Data is stored in the logical Schema, and the report is generated from that OLAP system. The application provides features to analysis of the data for growing the business in telecommunication area, that how much users are subscribing the Direct-V channels and their expenses. The application also provides features to generate big data analytical reports.

**Roles & Responsibilities:**

* Interaction with client to gather requirements and estimation of software development efforts along with other project activities. Developed a multi-source data reporting system for healthcare analytics, facilitating better patient care metrics and compliance reporting.
* Created and Managed Data Models using Cognos modelling, SAS VA and SAS DI.
* Worked with SQL Joins, transformations, joining data using SQL Query on the Designer.
* Created Graphs for analysis using Cognos and SAS VA, and designed complex dashboards using multiple parameters, filters and calculated fields using Cognos BI and SAS Visual analytics VA and data is fetching from Hadoop engine connecting with SAS and load in Base SAS tables.
* Work with Business Intelligence tools such as Cognos and SAS VA to develop reports and provide data to stakeholders.
* Create and leverage analytical approaches to perform analysis of domain specific source data to provide accurate statements and conclusions.
* Works with senior management team and operation-level managers to design and maintain sales and operations-based metrics.
* Assist in development, roll-out, and maintenance of dashboards, both executive and management reporting, across the enterprise.
* System maintenance & administration, new functions development, creation and rewriting of extraction triggers, SQL code optimization, defining various parts of Informatica ETL process according to company’s standards and methodologies (Kimbal’s approach to Data warehouse), understanding and usage of basic terms used in telecommunications industry, analysis of aggregates and their optimization (and re-design), writing of migration scripts, knowledge handover and co-workers’ education.
* Worked with SQL Joins, transformations, joining data using SQL Query on the Designer.
* Created Graphs for analysis using Cognos and SAS VA, and designed complex dashboards using multiple parameters, filters and calculated fields using Cognos BI and SAS Visual analytics VA and data is fetching from Hadoop engine connecting with SAS and load in Base SAS tables.

**Technologies:** Oracle (PL/SQL), SAS, Informatica, Cognos BI Reporting, SAS VA

**Client: Walgreens Boots Alliance, London,UK Aug-2010 to Nov-2014**

**Role: BI Developer**

**Company: Sopra Steria**

**Project: Mercia, Supply Chain Planning System**

**Project Detail:**Boots is a household name in Europe and has extensive network of healthcare & beauty retail stores all over Europe, in this project Supply chain team is responsible for wide range of mainframe applications. This include work related to Merchandise accounting, EPSOM, DALLAS and Witron WMS system for different Boots department, & critical applications, which collect data from the stores, distribute it to different systems and then after the data has been processed then send it back to stores and other external partners for trends analytics and reporting are done via BI tools SAS DI, Cognos reports. provided the reports with respective Banks transaction based on bin ranges and also respective acquirers on Boots total transaction, Boots Opticians Sales, Credit/Debit Cards and Gift Cards. Provided Analytics on Boots product sales, stock details, orders, and suppliers level reporting.

**Roles & Responsibilities:**

* Participated in Design and development of Cognos reporting using data models for planning and forecasting systems in accordance with both Company and industry best practices and standards. Estimation of software development efforts along with other project activities. Develop and design data models, create Physical and logical schema using data warehouse.
* Design, develop, and support effective and efficient operational linkages between the corporate planning system and the regional and business function models & Demonstration of application to client.
* Fixed BAU projects and raising Work orders and thereby managing the Timesheets Activity in Line with Fixed Price and TM budgets. Work with Business Intelligence tools such as Cognos and Power BI to develop reports and provide data to stakeholders.
* Published Cubes from existing queries for sub-second response times and additional OLAP exploration.
* Developed Drill through Reports with drill through on any data element.
* Create Jobs and transformations for ETL using SAS –DI and Advanced dynamic Reports and designed effective prompts.
* Worked with Table loader transformations like setting table loader transformation, selecting load techniques and showcase the in visual format in Cognos and SAS reporting tools.
* Design, develop, and support effective and efficient operational linkages between the corporate planning system and the regional and business function models & creating new projects and workflows for the test techniques required for experiments & maintenance the historical data in data warehouse system for future forecasting.
* Developed and maintained Cognos BI reports that increased visibility into the supply chain operations, decreasing logistics costs by 30%.
* Implemented an exception reporting mechanism within Cognos that identified and alerted us of inventory discrepancies in real-time.
* Reduced month-end closing cycle time by 20% through the implementation of automated Cognos reporting workflows for the finance department.
* Initiated the transition from legacy reporting systems to an integrated Cognos Business Intelligence suite, which led to a 25% reduction in related IT costs.

**Technologies:** Oracle (PL/SQL), Oracle Forms & Reports 4.5 & 6, Informatica, Cognos BI Reporting, SAS VA and Qlik Sense for data visualization