

# Naveen Manoharan

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Enterprise data management | Database architecture | Data architecture | Business Intelligence | Project Delivery and Management | Stake holder Management | Team Management

Proven track record in perceiving & implementing effective ideologies, strategies in IT industry. Gained rich experience majorly in US health care under inspiring leadership that added values to my experience and the organization.

## Executive Summary

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- Vibrant career of 14+years that echoes rich experience in Database architecture and design, data architecture, Data acquisition processes, Data quality, Data governance, Business intelligence, Visualizations, Data warehousing
- Expertise in managing End to End Solutions, Delivery and management of complex time bound implementation projects as per SLAs and cost
- Proficient in project requirements Definitions and Analysis, Project Planning, Effort Estimation, Management and execution, Team Building, Team Management and Leadership.
- Proficient in defining process, best practices, documentation methodologies for the data intake processes
- Positive and result oriented person with strong communication and interpersonal skills with proven track record in architecture, design, project and people management and getting recognized for the work done.

## PROFESSIONAL EXPERIENCE

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**EXL SERVICES (Erstwhile - Scio Heath Analytics) | Chennai** Period: May-2009 to present

**Designation: Sr. Manager**

**Large Teaching Hospital**

**Duration: Mar 2017 to till date**

**Technologies: MS-SQL server 2008 R2, Oracle 11g PL/SQL, Tableau 10.3**

- Heading and setting up a team (size 10) of knowledge management function, involved in strategy planning, project management, architecture, technical solutions and stake holder management
- Leading and managing BI projects and its dedicated team
- Create and design Observational Medical Outcomes Partnership (OMOP) data model, common data model(CMD) to standardize the format of observational health data and to bring out the value through large-scale analytics
- Analyze near-real time clinical data and design robust data framework for reporting and analytical needs of various departments
- Architect, design and Develop ETL framework to transform data residing in Electronic Health Records & other operational data from Oracle clarity to SQL server
- Design data and tableau architecture for the various departments that concentrate on data analytics for chronic care management, collaborative care treatment
- Responsible for collating metrics, building DataMart and dashboards required for CMOs, COOs to monitor and control CMS recommended measures in terms of Quality Safety, Patient acuity and patient safety index
- Analyzing the clinical data and determining the measures needed to monitor and track protocol adherence in various ICU units and surgical units
- Suggesting new tools and techniques by providing robust architectural road map
- Analyzing incoming requirements and identifying potential projects or information requests
- Create full scale project plan, execution and monitoring the progress
- Develop deliver progress reports, requirements documentation and presentations
- Heading daily touch point meetings to understand the challenges and issues faced by the team

**DATA MANAGEMENT SCIO Vantage - LARGE ISURANCE BROKER** Duration: Dec 2015 to March 2017

**Technologies: MS-SQL server 2008 R2, SSIS, SAS EG, TIDAL, .Net**

A robust data intake ETL framework and process haven designed and built to ingest the heterogonous claim files (3000+ files) from client's desperate systems into Scio's SAS platform. Built and trained a 40-45+ member team from scratch single handedly

### Roles and responsibilities:

- Defined project scope, goals and deliverables that supports the business needs in association with senior management
- Setting Project expectations with the team members and Liaising with stakeholders on a regular basis
- Planning, scheduling, tracking project timelines and milestones using appropriate project management tools
- Creating and defining status reports for the implementation process
- Estimating the resources required for projects by analyzing the effort involved
- Creating budget proposals and recommending budget changes as needed
- Defining RACI Matrix, Escalation Matrix and Business continuity plan
- Defining standard operating procedures, Role based check lists

- Negotiating with managers across departments for the acquisition of required staffing within organization
- Recruiting, training and onboarding required resources in the entire project implementation phase
- Clearly defined training strategy, training materials and schedule
- Developed full scale project plans and communication protocols and relevant documents
- Conflict management - Identify and resolve Issues and conflicts within the team
- Established database management systems, standards, guidelines and quality assurance for database deliverables, such as Conceptual design, logical database, capacity planning, external data interface specification, data loading plan, data maintenance plan and security policy.
- Created database dictionaries, defined overall database standards and procedure, and integrates systems through database design Data Mapping, Integration/ETL Development, Testing& Database design
- Facilitating the transition from high level design to detailed technical design documents.
- Evaluating, analyzing and proposing infrastructure needs for successful implementation.
- Defining and standardization of data layouts for Enrollment, professional, facility, pharmacy, biometric and provider data by identifying mandatory, good to have and not mandatory data that would be ingested by SCIO Vantage (Proprietary Technology).
- Creating data flow diagrams, architecture design and pseudo code during the conceptualization phases and review with business for feedback.
- Building a robust ETL workflow, logics for service type bucket, claims adjustment and to load Enrollment, Medical claims, Pharmacy claims, provider data, survey data and biometric data.
- Automated jobs to download, decrypt, unpack the files into staging environment
- SAS Code review and guiding team to develop optimal SAS codes. Leading the development and review of data processing by Table Driven Architecture's core engine in SAS
- Identifying and recommending all reporting needs for data acquisition process such as file drop in summary, delayed files, error files, and surprise files on the ftp sites
- Identifying and defining scope, rules of quality checks at various levels in the data load process
- Defining process flow for Data Quality check and configurable universal quality check algorithm to validate the reliability of data at each phase of data injection– Staging, Mapping and warehouse
- Recognized and Recommended deserving resources for promotion both in monetary and Career Aspects
- Identifying team member facing Challenge in understand the domain and process and facilitating them with additional training

#### **Ideation of Tools for Data Management Function:**

**SCIO Data Intake Tracker** –Tool to monitor and manage data intake mechanism based on predefined file arrival schedule.

#### **SCIO Data Integrator** –

Tool developed to facilitate the data load process by replacing the traditional ETL method. Numbers of auxiliary modules were developed to perform FTP server configuration, staging level import and mapping, Mappings for transformation process and fit the data as per the product's standard data warehouse structure. It was built-in adherence with globally acceptable software development standards

#### **Enterprise Data Management:**

**Duration: Aug 2013 to Nov 2015**

**Technologies: MS-SQL server 2008 R2, SSIS, SAS EG, TIDAL, .Net**

Headed data management function (team size 13-15) for SCIO across three proprietary products - SCIO Vantage, SCIO Mine & My Socrates. The data management function is a horizontal layer across the technology & analytical products and services. The data management function caters to all needs of the business and taken complete ownership in design, architect and delivery. In this role, I was responsible for:

- Architecting the data implementation across SCIO proprietary products.
- Data layout analysis and verifying the fitness of layout and Creating workflow for data load processes and Defining quality processes to identify the potential issues with the data.
- Reviewing and maintaining production systems to ensure they meet the demands of the business in terms of capacity, quality and reliability.
- Creating the repository of the customized data layouts and developing strategies for combining medical, pharmacy and eligibility data, understanding and evaluating exclusions/blocking criteria for each customer to create valid and accurate warehouse to represent a single source of analytic truth
- Developing benchmark comparison methodology for financial and clinical utilization and their trends
- Managing solution improvements through database optimization, enhancements, and implementations of new features and functions;
- Defining best practices, standard operating procedures for the data load processes.
- Executing production engineering processes such as incident management, root cause analysis, problem and change management, release management, and knowledge management.

- Developing standardization processes and procedures to convert data from different formats to the standard unified data structure required by SCIO Vantage
- Developing strategy for combining medical, pharmacy and eligibility data to create valid and accurate warehouse to represent a single source of analytic truth
- Supporting the department development of SOPs, procedural documentation and process improvement.
- Participating in the evaluation, validation, and implementation of software and of new data management technologies.
- Analytical algorithms to predict the selectivity of claims under audit programs such as DRG, short stay, SNF, Home health, HCD and identifying and marking the eligibility in advance before they undergo revenue recovery process.
- Analytical algorithms were developed to predict the eligible claims precisely in order to reduce the number of outreach to the third party and the underlying cost.

### **Enterprise DATA Warehouse (SCIO's proprietary products SCIO Vantage, SCIO Mine and Socrates)**

**Technologies: MS-SQL server 2008 R2, tableau 8.1**

**Duration: Jan 2013 to July 2013**

- Designing the process to streamline the data from all client systems to Data Warehousing system.
- Utilizing ERWIN data modeler to design database structure and to deploy the table schema into the warehouse databases
- Designing end to end solution of loading data into Star schema and Snowflake methodology
- Maintenance of data warehouse using data warehouse Administration Console.
- Increasing the performance through identify the bottlenecks.
- Extensively set up ETL processes using SSIS transformations tools.
- Evaluating the BI tools such as Sisense, power BI, Power Pivot, MSBI tools, Tableau BI. Creating a use case for Tableau as a long-term BI solution in terms of ease of development, visualization, user friendliness, analytics features and In-Memory storage of data as tableau extract.

### **SCIOVANTAGE**

**Duration: May 2009 to Dec 2012**

**Technologies: MS-SQL server 2008 R2, .Net**

**SCIOvantage is SCIO's proprietary software platform that enables decision-makers to significantly improve program effectiveness, increase payment accuracy, positively impact care and wellness initiatives, and drive commercial effectiveness. It facilitates the users to create and define their own rules to identify patient's eligibility, diseased conditions, patient's clinical utilization, cost and the prospective risk factor.**

**Product's powerful patient profile analytics algorithms with actionable dashboards helps to deliver population health management and network analytics**

- Involved in developing core proprietary patient profile algorithms in SQL, which is capable of
  - Identifying eligible population leveraging stored procedures to Identify members and their continuous, total coverage, demographic details, employer groups by month for the measurement period.
  - Leveraging rule engines to identify a patient's disease conditions and the condition triggered date (If the patient is diabetic, CAD, COPD, ESRD etc.), based on CPT code, PROCEDURE codes, ICD codes, HCPC Codes, Surgical procedures, NDC codes by identifying the procedure events, diagnostic events and prescription events
  - Claims aggregation to compute cost and utilization of members for the indications defined in the application (such as skin cancer, maternity, and trauma.).
  - Creating a unique Member Eligibility profile that identifies the members eligible for the clinical facts' algorithm based on their continuity in coverage, total eligible months, Medicare or Medicaid, age, gender
  - Leveraging Algorithm driven engine developed similar to disease population which yields output on patient level information on utilization, last visit date, first visit date, number of prescriptions, first medication date, and last medication date. This stage of algorithm consumes output of disease population, member eligibility profile and claims
  - Risk scoring algorithms were developed to identify risk factor each member which in turn helps in outreach the members effectively
  - Designed a Rule Engine for JITW (Just in Wellness) a wellness outreach module. This module utilizes data from the Member Profile to help users outreach to patients who would benefit by intervention.
  - Designing database, tables for metadata, Implementing star schema methodologies
  - Defining and creating database maintenance plans such database backup policies and strategy, index requirements, fragmentation and maintenance jobs
  - Analyzing and identifying long running SQL queries and performance tuning the same.
  - Programmed on SQL (MS-SQL) to developed various proprietary processing algorithms, reporting algorithms by developing stored procedures, partition views, table partitioning, triggers, user defined functions

- Peer reviewing the codes developed by team members and providing technical inputs to the team
- Creating, defining and implementing coding guidelines and standards

**Ramco Systems Ltd. | Chennai | [www.ramco.com](http://www.ramco.com)**

**Period: Nov-2007to Apr-2009**

**Designation:** Programmer Analyst

HRMS and Payroll solutions are a part of the RamcoEnterprise Series family of ERP products offered by Ramco Systems. Ramco payroll Solution also contains a robust set of middleware applications that seamlessly interfaces with legacy systems. Payroll Engine is completely developed in SQL which computes the payroll, statutory and Non-Statutory information of the employees configured in the product.

**Responsibilities:**

- ✓ Created Database Objects like Tables, Stored Procedures, Views, Triggers, Rules, Defaults, user defined data types and functions.
- ✓ Implemented database standards and naming convention for the database objects.
- ✓ Developing SQL scripts for maintaining administration tasks.
- ✓ Tuned the SQL queries using SQL profiler. Involved in tuning the database.
- ✓ Involved in developing stored procedures, triggers for the application.
- ✓ Estimating of Table sizes and Record sizes.
- ✓ Maintain all the SQL documents installation and data conversion Procedures documents.
- ✓ Trouble shooting Problems by using SQL server profiler.
- ✓ Solved critical production problems and performed point in time recovery plans.

**Allsec Technologies (p) Ltd. | Chennai | [www.allsectech.com](http://www.allsectech.com) Period: Feb-Duration 2006 to Nov-2007**

**Designation:** Junior Programmer

Organization focusing on IT enabled services for the credit cards organizations in the U.S. In-house software development division focuses on the web application& database development for all their divisions to provide operational support.

**Responsibilities:**

- ✓ Creating database, Table, Users.
- ✓ Written T-SQL query scripts based on the client's strategy for support team, reports team and dialer team.
- ✓ DTS Packages design to upload and download files to and from the database
- ✓ Scheduling jobs to migrate data from production server to reporting server
- ✓ Generating Client Reports and Ad-hoc Internal Reports.
- ✓ Working with application teams to plan, develop and test new releases of application software.
- ✓ Data cleansing-processing the records received from the client according to suit the environment.
- ✓ Developed a data extraction tool from customer web portal to support production tracking system.

## EDUCATIONAL DETAILS

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|--|----------------------|-----------------|
| ✓ <b>B.E., – Electronics and Communication Engineering</b>     | <b>[2000 – 2004]</b> | <b>- 73.3%</b>  |
| Vellore Institute of Technology, Vellore, Tamil Nadu           |                      |                 |
| ✓ <b>H.Sc.– Higher Secondary (12<sup>th</sup> Standard)</b>    | <b>[1999 – 2000]</b> | <b>- 79.75%</b> |
| Sri Ramakrishna BHEL Higher Sec. School, Ranipet, Tamil Nadu   |                      |                 |
| ✓ <b>S.S.L.C. – School Secondary (10<sup>th</sup>Standard)</b> | <b>[1997 – 1998]</b> | <b>- 60%</b>    |
| D.A.V BHEL School, Vellore, Tamil Nadu                         |                      |                 |

## OTHER FACTS

Father's name	: Mr. Manoharan V.
Date of birth	: 11thOctober 1981
Nationality	: Indian
Marital status	: Married
Passport	: L7610134; E8555982
Languages	: English, Tamil
Interests	: Playing carom, Listening Music
Communication address	: 1D – SAI KRIPA, Sathya Nagar, Cover, Chennai – 128.