

## Sagar Khapre

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### **Summary and Accomplishments:**

- 8.3 years of full Life-cycle BI and Data warehousing projects experience starting with requirements analysis, proof-of-concepts, design, development, testing, administration and implementation
- Sound knowledge of Data warehousing methodologies and Dimensional Modeling like Star schema and Snowflake schema
- End to End MicroStrategy Project Implementation, Design, Delivery and Handover
- Thorough understanding of entire BI Project life cycle and onsite-offshore development processes built around agile methodology and best practices
- Assessment of Existing MSTR Architecture and Data Modeling changes specific to project needs and complexity
- Development - Report Design, Document Design, RSD, Dossiers, VI Dashboards
- Command Manager scripts, Enterprise Manager Reports, System Manager Automations.
- Optimizations of Reports, Documents, Cubes etc.
- Strong Analytical Skills and experience in working across various sectors including Pharma, Retail and Healthcare
- Project Management – Scrum Master in various projects handling the daily scrums, release meetings, backlog refinement using JIRA as an Agile Management tool.
- Contributing to the MSTR Practice, Delivering Experts session to Boot campers etc.
- BI Key Areas – Cube-Dashboards Optimization, Architecture Assessment, BI Governance, Data Wrangling, Automation through Command Manager Scripts and System Manager, MSTR On cloud, Data Glossary, Custom EM dashboards, Designing Security Model on MSTR using ACL, Connection Mappings and Security Filters.

### **Technical Skills:**

#### **MicroStrategy Stack: (working experience)**

- MicroStrategy Desktop/Developer (Reporting, Freeform SQL Reporting) version 9.2.1 , 9.3 , 9.3.1,9.4.1 , 10.2 , 10.11
- MicroStrategy Architect( Project Design)
- MicroStrategy Web(Documents, Dashboards, Visual Insight , Dossiers)
- Microstrategy Mobile (Apple iPad, iPhone and Android devices)
- MicroStrategy Object Manager , Command Manager , System Manager , Integrity Manager
- MicroStrategy Transaction Services
- MicroStrategy Analytics Desktop
- Microstrategy SDK and API basics

#### **Other Reporting Tools**

- Tableau Desktop and Server

### **ETL Tools**

- SSIS, FM Parser , Spark and Scala ETL framework

### **Data Modeling**

- Normalized, De-normalized, Star and Snow Flake Schemas , Hybrid models ,
- Indexing and Performance improvement strategies.

### **Databases**

- MS-SQL Server, Oracle, Amazon Redshift

### **Scripting Languages**

- PowerShell, JavaScript, Python

### **Cloud**

- Amazon Web Services

### **Project Methodologies**

- Waterfall, Scrum Agile (using JIRA)

### **Dev-Ops Tools**

- BitBucket, Git-Hub, Bamboo, Jenkins , Apache Maven

### **Automation Tools**

- Selenium

### **Professional Experience:**

#### **Engineering Manager**

**May 2019—Present**

Optum India Pvt Ltd, Chennai, India.

#### **Responsibilities:**

- Assigned as Manager to advice, coach and lead a team of 12 people for OPA project.
- Understand the business needs and support providing technological support of demand management during concept and solution design phases and change requests.
- I am doing people management as well as helping in design and architecture of MicroStrategy application.
- My main goal with this team is to drive the delivery of development activities in line with the business brief, deliver quality content on the product and meet SLAs. Assist, advise and contribute to developers.
- Work with stake holders on the Sprint Planning, Resource allocation, Release Planning.
- Use best practice knowledge to support the future capabilities for the Project.
- I have full people supervisory responsibility for my team of 12 professionals and contributes to team delivering development activities.
- Resolve day to day challenges in the project for team members, processes and stake holders.

- I lead the team and ensure that they are solving problems, doing analysis and interpret different situations in order to identify, search and select the best solution.
- Do performance evaluations in every cycle and manage the compensation changes and appraisals.
- Do bi weekly 1:1 meeting with team members to keep understand their problems, coach them, correct their mistakes and keep them motivated to be on the track to achieve business and career goals.
- Maintains strong relations with relevant stakeholders, to include Architects, Solution Designers, project team and vendors.
- Playing Scrum Master Role and make sure that all the agile ceremonies and best practices are followed. We use JIRA and Rally as our Agile ticketing tools.

**Senior MicroStrategy Consultant**  
Optum India Pvt Ltd, Chennai, India.

**August 2015—May 2019**

**Responsibilities:**

- I was the first Microstrategy Hire in Chennai office and was responsible for all end to end Microstrategy development and deployment across the projects in Chennai Office.
- Assigned as MicroStrategy Architect to advice different projects teams on best practices in deploying and delivering high quality business intelligence solutions
- Training deliveries on all MicroStrategy products to employees and Product managers.
- Designed and implemented the data models for Ad-hoc reporting projects in the company which was the main requirement.
- Designed and implemented the Data and object security models in various projects.
- Helped the software development teams to design the ESM module using SDK and Single sign on.
- Designed and automated the deployment of MicroStrategy packages till higher environments.
- Designed and implemented the automated testing for Microstrategy reports and dashboards using Integrity Manager, System Manager and Selenium.

**Project Details:**

**1. Optum Performance Analytics (OPA)**

<b><u>Project Title</u></b>	: OPA
<b><u>Role</u></b>	: End to End Business Intelligence Developer.
<b><u>Duration</u></b>	: February 2019 to Present
<b><u>Front End</u></b>	: MicroStrategy 10.11
<b><u>Database</u></b>	: Amazon Redshift, Oracle
<b><u>ETL</u></b>	: Spark and Scala ETL framework, FM Parser

**OPA:** The end-to-end data management, reporting and analytical solution to predict risk, improve clinical and financial performance, increase efficiency and strengthen relationships with patients and health plans.

The main aim behind this project was to build a complete platform which is highly optimized to show the HealthCare Data. This product was based on MicroStrategy and provide vast variety of Ad-hoc Reporting and Standard Dashboards to customers.

#### **Role in the Project:**

- This was an existing project created and maintained by MicroStrategy Contractors on heavy payroll. My role was to get the knowledge of entire project, collaborate with MicroStrategy contractors and start designing and implementing Ad-hoc reporting models which I implemented in my earlier projects.
- Used combination of Snowflake and Star Schema in the data modeling to get the ad-hoc reporting working.
- Write the ETL using FM parser and SQL for views which are optimized for Microstrategy ad-hoc reporting.
- Create all the schema objects (Facts, Attributes and logical Views) required in the Reports by using MicroStrategy Architect and independent object editors.
- Create all the required application objects (Metrics, Prompts, Consolidations, and Filters etc.).
- Create 2 Advance workspaces for users using Dossiers which contained various object prompts, Hierarchy prompts and filters optimized for doing ad-hoc reporting on Dossiers where user can create their own visualizations.
- Implemented the Data security and object security for the project using a security table and system login prompt.
- Worked on AWS migration of project where we needed to make sure the existing reports, documents and Dossiers are not affected and still they can run on the new Redshift Database.
- Helped to write ETL using Spark and Scala framework to move the existing tables from Oracle to Amazon Redshift database.

## **2. Data Hub Analytics**

<b><u>Project Title</u></b>	: DHA
<b><u>Role</u></b>	: MicroStrategy Lead Engineer.
<b><u>Duration</u></b>	: December 2017 – January 2019
<b><u>Front End</u></b>	: MicroStrategy 10.2
<b><u>Database</u></b>	: MS-SQL Server
<b><u>ETL</u></b>	: SSIS and SQL

**DHA:** The end-to-end data management, reporting and analytical solution to predict risk, improve clinical and financial performance, increase efficiency and strengthen relationships with patients and health plans.

The main aim behind this project was to build a complete platform which is highly optimized to show the HealthCare Data. This product was based on MicroStrategy and provide complete Ad-hoc reporting features to the users. In this project users can directly pick up attributes and metrics from the

browser and create Ad-Hoc reports, Documents and Dossiers from scratch. It also had some Standard Dashboards too for direct consumption of users.

**Role in the Project:**

- My role was to build this project from scratch, do end to end development and get it ready for deployment in production.
- Design Data Model by looking at existing data and then talking to product managers and collecting requirements.
- Design the folder structure strategy for schema objects to be used by users.
- Design the security model of the project by using Connection Mapping, ACL and Security table in conjunction with security filter.
- Create all the schema objects (Facts, Attributes and logical Views) required in the Reports by using MicroStrategy Architect and independent object editors.
- Create all the required application objects (Metrics, Prompts, Consolidations, and Filters etc.).
- Create multiple Enterprise Insights Dashboards optimized for viewing on the Microstrategy web and do all the formatting and testing.
- Functionality Used:
  1. Panels and Panel Stack Layering.
  2. Vertical Line Graph, Grid, Stacked Vertical Bar , Pie and Heat Map
  3. Dynamic Text boxes to show summarized metrics.
  4. HTML containers.
  5. Information Window.
  6. URL API
  7. Linking using the dynamic prompt options to pass the answers and show drill down details.
  8. Derived metrics, View Filters
- In this project there were multiple teams and developers which caused a lot of quality issues in the code and regression issues. So I developed an automated program which can unit test the changes and tell us what impact it is going to cause on QA environment before deployment. It will notify the developer via email and send the errors which will get impacted.
- This tool was developed using System Manager, Integrity Manager, PowerShell and Bamboo jobs.
- I was responsible for designing the code review, regression and deployment process to with help of the team.
- Developed a customized Document on enterprise Manager to show DHA utilization metrics.

**3. Segment , Intercom and AskNicely Integration with Microstrategy**

<b><u>Project Title</u></b>	: Intercom and Asknicely Integration
<b><u>Role</u></b>	: Microstrategy SDK Developer.
<b><u>Duration</u></b>	: September 2017 – November 2017
<b><u>Environment</u></b>	: MicroStrategy 10.2

**Tools** : Javascript , MSTR SDK kit , Eclipse , Tomcat Server

The main aim behind this project was to Integrate the 3<sup>rd</sup> party vendors [Segment](#) , [Intercom](#) and [AskNicely](#) with Microstrategy web.

These tools help us track the user activity, chat with them when they are online, help them to create a report and collect NPS feedback from users so that we can improve our product.

**Role in the Project:**

- My role was to gather requirement from each MSTR product in the company for integration and make them understand the work I am planning.
- After approvals I used MSTR sdk to collect user session info via Javascript from browser and pass that information to Segment and Intercom which are 3<sup>rd</sup> party tool which will provide the chat feature on MSTR web pages.
- I also integrated the AskNicely snippet and Intecom together so that we can collect the NPS scores for each MSTR products.

**4. Population Health Reporting**

<b><u>Project Title</u></b>	: PHR
<b><u>Role</u></b>	: MicroStrategy Developer
<b><u>Duration</u></b>	: August 2016 – August 2017
<b><u>Front End</u></b>	: MicroStrategy 9.4, 10.2
<b><u>Database</u></b>	: SQL Server, Post-Gre

The main aim behind this project team was to handle the development and maintenance of 4 products CPRR, CMRR and CQR and CCAR. These products are on MicroStrategy and server the reporting need of its master application which is a web application.

These products has different requirement as per the variety of master products they use to report on. A team of 16 people in group of 4 per product was build which used to handle these products.

**Role in the Project:**

- My role was to lead all 16 people on Microstrategy front.
- I was the Microstrategy Architect of the project who will decide the data models.
- Guide developers on developing reports, documents and dashboard.
- Help improve performance of existing reports.
- I developed the security filters and the security model for these products.
- Took part in regression testing when all the products got upgraded from 9.4 to 10.2 version of Microstrategy.
- During this project I came up with an idea of a single Microstrategy platform which can support all these 4 products and in future it was called as DHA.
- I also played SCRUM Master Role in this project for 1 month.

## 5. Crimson Population Risk Report

<b><u>Project Title</u></b>	: CPRR
<b><u>Role</u></b>	: Developer.
<b><u>Duration</u></b>	: August 2015 – August 2016
<b><u>Front End</u></b>	: MicroStrategy 9.4
<b><u>Database</u></b>	: MS- SQL Server

**CPRR:** This project was mostly focused on Cost, Utilization and Risk related to patient health care given by a hospital.

The main aim behind this project was to build 2 types of reports.

1. Print ready pdf exportable Physician Profile Document to be used by Quality team in the hospitals as print pages.
2. Customizable Physician and Patient Profile quality report which can be printed and be bursted into multiple pages.

### **Role in the Project:**

- This was my first project as a Microstrategy developer in this company and my role was to help develop the above mentioned reports.
- Designed the Document using sections by adjusting the page size to print ready.
- Designed the Customizable document where a user can select a set of metrics and based on the selection the sections of the document should show and hide. This feature I designed by developing pivot down tables which stores metric names and section names. This data I used as attributes to show as a hierarchy prompt where user can select the section.
- Based on the selection the section would have the conditions to show and hide sections.
- Also I used something called as Adaptive metrics using Case when which is another combination. These metrics helped in giving an ad-hoc experience to the user.
- I designed the bursting capability of the Document to be exported to a location.

**Education Consultant /MicroStrategy Consultant**  
Nice Software Solutions, Nagpur, India.

**June 2012—August 2015**

### **Responsibilities:**

- Assigned with MicroStrategy developer to advice clients/partners on best practices in deploying and delivering high quality business intelligence solutions
- Training deliveries on all MicroStrategy products to employees, customers and partners worldwide
- Training deliveries on all QlikView and Tableau products to customers and partners worldwide
- Designed and maintained new courses on BI tools like MicroStrategy, QlikView and Tableau

- Extensively worked on advanced objects like relationship filters, heterogeneous facts, compound attributes , Consolidations, Transformations, Prompts and Custom Groups , transaction based dashboards , Free form SQL Reports to generate Documents , dashboards and Mobile apps for Business analysis.
- Creating and managing QlikView reports & dashboards.

## **Training Experience:**

### **Distance Learning Trainings:**

Over 100 training sessions taken on **Microstrategy, QlikView** and **Tableau** business intelligence tools for different courses as per different roles including Architect, Developer, Administrator Data Modeler and Data Mining to attendees from various client companies located in different locations including **US, Canada, UK, Europe** and **APAC** regions.

### **Onsite Trainings:**

Customized training provided to clients in India and APAC regions including trainings in major cities like Hangzhou (China), Chennai , Pune and Bangalore for Clients like **MicroStrategy Inc., TCS Pvt. Ltd, Yahoo! Inc.** and **ZS Associates**

#### **MicroStrategy Inc. Hangzhou, China.**

- Successfully delivered MCD Boot Camp of 40 Days for MicroStrategy employees.
- Managed and trained a team of 27 MicroStrategy employees on different modules such as Developer, Architect, RS Dashboards, Visual Insight, Mobile for App Developers, Alert, Usher, Cloud and Analytics express.
- Advised and worked with the team to implement a POC and developed Mobile applications based on Insurance Company.

#### **TCS Pvt. Ltd. Chennai:**

- Successfully trained on MCD BootCamp training on MicroStrategy tool for 20 days.
- Managed and trained a team of 23 attendees working on different roles which included Architects, Developers, Data Modelers and Fresher.
- Advised and worked with their team for deploying and delivering high quality business intelligence solutions using Microstrategy.

#### **Yahoo! Inc.**

- Leading team of five onshore Members, three offshore Microstrategy developers and one Database Admin.
- Customized training given for 7 days to develop standard and transaction based dashboards for Mobile Device.



## Project Details:

### 6. MicroStrategy

<u>Project Title</u>	: ARTiS
<u>Role</u>	: MicroStrategy End to End Mobile Dashboard developer.
<u>Duration</u>	: August 2013 – July 2015
<u>Environment</u>	: MicroStrategy 9.3.1, Windows, Oracle, Informatica
<u>Client</u>	: ZS Associates, Pune

**ARTiS™**: The end-to-end data management, reporting and analytical solution for sales and marketing.

The main aim behind this project was to build a complete platform which is highly optimized to show the Pharmaceutical Data. This App will be "Ready to Implement" type which can save time and can give insights in few weeks instead of long months of typical BI implementation.

#### **Role in the Project:**

- Help in creating new optimized data model based on previous models created on **ARTiS: for United States** and **ARTiS: for Europe** data which should suit the current complications of Reporting and ETL.
- Used combination of Snowflake and Star Schema in the data modeling.
- Create all the schema objects (Facts, Attributes and logical Views) required in the Reports by using MicroStrategy Architect and independent object editors.
- Create all the required application objects (Metrics, Prompts, Consolidations, and Filters etc.).
- Create five Primary Care dashboards optimized for viewing on the Mobile device and do all the formatting and testing.
- Those 5 iPad dashboards for **ARTiS : United States** are as follows:
  1. Home Page (Showed Key insights on homepage and navigation for other Views)
  2. Metric Performance (Vertical line graph , grid , vertical stack graph)
  3. Market Performance (Vertical Percent to total stacked graph , Grid , Line Chart)
  4. Geography Performance (Pie Chart , Heat Map widget , Vertical Line chart, Grid)
  5. Customer List (Grid , Bubble graph )
  6. Customer Map (Grid , Map Widget)
  7. Pre Call (Grid , Dynamic text boxes , Vertical Bar graph , Combination Chart )
- Functionality Used:
  9. Panels and Panel Stack Layering.
  10. Vertical Line Graph, Grid, Stacked Vertical Bar.
  11. Panel Selectors to switch between views (Monthly , Yearly)
  12. Dynamic Text boxes to show summarized metrics.
  13. Button Bar navigation using Panel stack, images and Links at the bottom for switching the View.
  14. Information Window.
  15. Metric Selectors to switch between metrics.

16. Conditional formatting to hide and show an image depending on the threshold defined.
17. Docked Panel Selector for swipe gesture.
18. Selector targeting selector and graph.
19. Derived metrics, View Filters and derived elements.

- Combine all 5 Dashboards to create an App which is primarily designed for Sales Representatives and first line managers. The application will aid Sales representatives understand their performance and baseline it against benchmarks such as National and regional averages of all other territories covered by the organization.
- The App provides reps with ability to drill down on the views such as Market Performance, Top payers or Physician list. It helps them identify the issue for lower performance, spot trends, if the top physicians are using competitor's products, if there is a change in tier status of the product for any top payer. Reps can also look out for possible opportunities from Customer list by identifying physicians who can be called to get more business.
- Created Security Filters at the user level and Implement Security of data at the database level by using Mapping tables so that the same App shows different level of data for Front Line Managers and Sales Representatives.
- Advised and used optimization techniques so that the execution time can be reduced.
- Created Adhoc Dashboard using MicroStrategy Visual Insight which helped user to create its own analysis.

## 7. MicroStrategy

<b><u>Project Title</u></b>	: Retail Management
<b><u>Role</u></b>	: MicroStrategy Developer
<b><u>Duration</u></b>	: June 2012 – Feb 2013
<b><u>Environment</u></b>	: MicroStrategy 9x, SQL Server 2008 R2, Windows

### **Project Description:**

The scope of the project was to create dashboards specifically for doing interactions on Mobile device for the Store Managers and Vendors to track the Sales and Inventory operations.

### **Role in the Project:**

- Understanding the user requirement.
- Analyzing and designing the documents to address business requirement
  - To create Customer Analysis Dashboard which provides Customer analysis, Customer Reach and Customer delivery details to the Client.
  - To create Sales & Inventory Dashboard to maintain Inventory and Sales details.
  - To create Supply Chain & Channel Analysis related documents for Sales Manager to maintain Account Activity, Balance Summary etc.

- Building the reports and customizing the dataset to improve the overall performance for the documents.
- Creating schema objects, application objects.
- In discovery phase, gather requirements for the visualizations, including output storyboard, analyses included, graphics design, KPIs.
- Implemented customized” **Image Layout**” Widget to show different maps using shape files.
- In Development stage, develop reports/ dashboards in the existing MicroStrategy Project (for accessibility both over web and mobile) leveraging the current objects.

**Qualification:**

Bachelor of Engineering in Computer Science and Engineering with Distinction  
Solapur University, Maharashtra

**Certifications and Trainings:**

1. MCD and MCE on 9.4 version was provided by Internal Nice Software Solutions as a Trainer.
2. Completed AWS training on Big Data and Hadoop provided by AWS.
3. MCA (Microstrategy Certified Architect) MSTR 2020
4. Microstrategy Certified Data Scientist (MSTR 2020)

**Extra-Curricular Activities and Award:**

- “Best Trainer” award in ABCO India pvt ltd for providing best training on Microstrategy.
- “Attitude is Everything Award” by Nice Software Solution for showing dedication towards client ZS associates and helping grow the business.
- Started ToastMaster International Club in the company to facilitate the growth of communication skills and public speaking.
- President of the Toastmaster Club of 1 year.
- Won Humerous Speech contest at club and Area level of Toastmaster International Club.

**Freelance Training:**

As I have the skill of training people I wanted to continue help people get trained better on MSTR so I joined Edureka an online training website as an online trainer. I work on weekends to train people online across the globe from last 2 years.