# Raja Purkayastha

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# **Executive Summary**

- Technology Specialist with over **20 years** of total experience
- Having over 10 years of diverse quality experience in Business Analytics
- Experience working with globally distributed workforce environment
- Designed, Architected & Implemented Enterprise Data Analytical Platforms
- Leading key digital transformation strategic initiatives including end to end delivery experience
- Artificial Intelligence Practitioner Machine Learning, Computer Vision, NLP & Deep Learning
- Domain expertise in AdTech, Healthcare, FinTech, Manufacturing, Sales & Marketing

# Qualification

#### Academic

- MBA (IT) from Sikkim Manipal University, Gangtok, Sikkim 2007
- B.A. (Economics), GC Itanagar, Arunachal University, Arunachal Pradesh 1996

#### **Professional**

- Advanced Certification in Artificial Intelligence & Machine Learning, IIIT, Hyderabad 2018
- Diploma in Information Systems Management, APTECH Ltd, Kolkata 1998

### **Technical Skill Set**

- Databases SQL Server, NoSQL (MongoDB, Cosmos, HBase & Cassandra) & Vertica, Presto, MariaDB,
   Oracle, PostgreSQL, Redshift & MySQL
- **Distributed Computing (Bigdata)** Apache Hadoop Stack (HDFS, Hive, Sqoop, Storm, Kafka & Mahout). Apache & Cloudera Big Data Platforms, AWS EMR, Databricks, Azure HDInsight & Spark 2.x
- Data Visualization Tools Tableau, Power BI & QlikView
- Scripting Python, Scala, & Shell Scripting
- Build and Deployment tools Jenkins. Octopus, GitHub, Bitbucket. TFS & SVN
- Operating Systems Linux & Windows
- Cloud AWS, AZURE & GCP
- Other Tools MSBI Stack (SSIS, SSAS & SSRS), Mirth, Pentaho Suite & Talend

### **Professional Certifications**

- 070-431: TS: Microsoft® SQL Server™ 2005 Implementation and Maintenance
- 070-432: TS: Microsoft® SQL Server™ 2008 Implementation and Maintenance
- 070-448: PRO: Microsoft SQL Server 2008, Business Intelligence Development and Maintenance
- 070-452: PRO: Designing a Business Intelligence Infrastructure Using Microsoft SQL Server 2008

# **Professional Experience**

### DBS Bank - Hyderabad

Sep 2019 - Sep 2020

Client: Internal (DAH2 - SG)
Role: Architect Specialist (AVP)
Project: Sales & Analytics Platform

- Advanced Data Analytics Platform
- Visual Analytics Practitioner & Evangelist
- Proof of concept on real-time data analytics solution
- Data Platform Migration Specialist
- End-To-End Tableau Implementation

Environment: Linux, OpenShift, AWS, Hadoop-Spark-Presto, MariaDB, MongoDB, Tableau & Power BI

**Responsibilities:** Leading end-to-end implementation for Treasury BI & Analytics Platform catering to the business users – dashboards/insights/reports. Leveraging single version of truth data lake (TDAP/ADA) across the organization using latest big data & deep technologies.

### Freelancer - Bangalore

Jun 2018 - Aug 2019

Client: Early Stage Startups (Incubated)
Role: Technology Advisory Consultant
Project: Multiple Engagement

- Deep Technology Startup Catalyst/Strategist
- Data Analytics Platform Design & Architecture
- Enabling Secured BI Cloud Platform Solutions
- Implement Visual Analytics Solutions

Environment: Linux, AWS, GCP, Hadoop-Spark, MongoDB & Edge device integration

**Responsibilities:** Served as lead mentor for Advanced Certification in AI/ML, IIIT Hyderabad & TalentSprint. Advisory board member of a reputed women engineering college in Hyderabad. Implementation of AI/ML & IIoT solutions for deep technology startups.

### Adroitent Inc. - Hyderabad

Mar 2016 – May 2018

Client: Healthcare (Multiple US Clients)
Role: Solution Head – BI & Analytics
Project: Healthcare BI & Analytics Platform

Building and implementing BI solution using heterogeneous sources (Oracle, Mongo, databases) being healthcare wellness platform of the organization. Implementation Hadoop-Spark end-to-end reporting, dashboards deployed in Tableau. Excel Services, VBA automation, Power BI for different actionable

insights. Exposes Self-Serve BI feature and empower power users and analysts. This solution is envisioned for deriving critical and quintessential need of the organization. EMR/EHR/FHIR and APIs Integrated Healthcare Data Platform for intuitive actionable insights using Tableau and Power BI

Environment: Linux, AWS EMR, S3, Hadoop-Spark-Redshift, Pentaho Suite, Power BI and Tableau

**Responsibilities:** End-to-End implementation of the project based on the BI & Analytics Platform catering to the reporting and insights using different dashboards. This is a multi-tenant application hence single version of truth is maintained across the organization.

### CoServe Solutions – Hyderabad

Sep 2014 - Sep 2015

Client: Energy & Utility Company (UK Client)

**Role:** Senior Solution Architect

Project: ERP - MSBI Platform Integration (Business Transformation Program)

Building and implementing BI solution using heterogeneous sources (SAP ECC & CRM, Cordys & SQL Server 2012 databases) being LOB applications of the organization. Implementation SQL Server 2012 features for end-to-end complex regulatory reporting, QlikView/Power BI dashboards deployed in enterprise portal. Excel Services, VBA automation for complex SSRS analytical reports and charts. This solution entails the ERP and MSBI integration as single point of truth. The solution has Self-Serve BI feature exposing SSAS cubes having full proof dynamic dimensional security feature. This strategic MSBI solution is meant for deriving business value outcomes and streamlining corporate processes.

Environment: Windows, Cordys, SAP ECC/CRM, MSBI 2012, SQL Azure, Power BI & QlikView

#### Responsibilities

- Architecture and design of EDW (SAP, Cordys and others)
- Complete EDW Data consolidation and integration
- Design end-to-end MSBI solution with mobility enablement as technical authority
- Implementation of Hybrid Cloud Solutions using Azure
- Scheduling and Estimates of different jobs and activities.
- Agile Project Management
- · Stakeholder and Team Management

### Invati Insights (Startup) – Hyderabad

Jan 2014 - May 2014

**Client:** Multiple US Clients

**Role:** Principal Technology Architect

**Project:** Big Data Analytics Platform & POCs

- Design and Architecture of Data Analytical Platform
- Technology evaluation and assessment for descriptive and predictive analysis
- Design BI KPI Dashboards for fleet optimization and effective energy consumption
- Functional evaluation of HVAC systems and IoT sensor data management

Environment: Windows, Linux, Vertica, HDP, Tableau, Azure HDInsight and Power BI

### Responsibilities

- Lead the technology vertical across different teams
- Infrastructure setup, assessment and recommendations for different projects.
- High and low level architecture of data management platform with DBMS2 & Hadoop
- Technology evaluation on different portal solution
- Technical presentations, recommendations and documentation

Client: Multiple US Clients

Role: Senior Technical Architect - BI

Project: SQL Server 2008 R2/2012 BI Platform

- · Requirement Analysis on Data Migration (Hi-Tech Client)
- Requirement Analysis and infrastructure assessment on existing MSBI Platform (Insurance Client)
- Gap Analysis and recommendations (Electric Car Manufacturing Giant)
- Design and Architect MSBI Platform for Sales & Distribution subject area (Manufacturing Client)

Environment: Windows 2008/2008 R2, SQL Server 2000/2008 R2/2012

### Responsibilities

- Evaluate latest MSBI tools in terms of enterprise adoption
- Infrastructure assessment, audit and recommendations for the project.
- Creation of SSIS Packages, Multidimensional/Tabular Models on BISM
- Present and demonstrate SQL Server 2012 BI POC
- Implementation of Hybrid Cloud Solutions using Azure
- Showcase project artifacts using MS Technologies
- Documentation recommendations in line to the process of the organization
- · Constantly interact with the stakeholders and implementing their feedbacks
- Design and Architect MSBI Platform for SQL Server 2012

Client: US Financial Services
Role: Senior Technical Architect
Project: SQL Server 2012 BI Platform

Financial Services BI solution using variety of consistent sources (from various customer centric database located in customer location) being vital applications of the organization. Unleash Self-Service BI features using Power Pivot and Power View in SharePoint 2013. Slicing and dicing data is based on tabular and multidimensional SSAS dimensional model. This solution entails complete data consolidation using SSIS packages and incorporates multi-tenancy. The solution has full proof dynamic dimensional security feature. This corporate solution is meant for effective decision-making and favorable ROI.

Environment: Windows 2008, SQL Server 2008 R2/2012

### Responsibilities

- Design and architecture of BI Platform
- Infrastructure assessment, audit and recommendations for the project.
- Creation of SSIS Packages, Multidimensional/Tabular Models on BISM
- · Client interaction and demonstrate features and functionalities
- Deployment and implementation

Client: US Semi-Conductor Role: Senior Technical Architect Project: Azure BI Reporting Solution

Developing Azure BI reporting solution SQL Server, deployed in Azure environment. This reporting solution provides drill-down charts based on different levels and key metrics. Generates spider and site ranking interactive charts. The data visualization part is prominent feature of the release. The backend is Azure SQL Server database. The solution is based on assessment survey carried out and illustrates CSAT scores and possible user choice outcomes for further advanced analysis. The charts are embedded in Azure.Net application and role-based security is implemented based on functional area.

**Environment:** Azure SQL Server, SSRS and Azure.Net

#### Responsibilities

- · Requirement gathering and analysis
- Design and architecture of Azure BI reporting solution
- Infrastructure assessment, audit and best practice recommendations for the project
- Creation of reporting datasets using stored procedure
- Client interaction and demonstrate features and functionalities
- Deployment and implementation

### PubMatic Inc. (Startup) - Pune

Jan 2012 - Jul 2012

**Client:** US Digital Advertising

Role: BI Architect

**Project:** CDW Analytic Platform & Comprehensive Self Service BI Solution

Design and Architecting Analytic BI solution using existing Hadoop ML Cluster. Being leader in online advertising and digital assets, best SSP (Sell Side Platform). We are in the initial stages of project, the challenge being huge data volume, variety and velocity. Dealing with 4 TB of compressed average daily data. The BI solution will unleash the potential of Self Servicing BI which is the need of the hour. The architecture is open, extensible and scalable which is meant for effective decision-making and favorable ROI.

**Environment:** Linux, MySQL, HADOOP (HDFS, Hive & HBase) and DBMS2 (InfoBright, Vectorwise & Vertica) and Pentaho BI Suite

#### Responsibilities

- Architecting, developing and implementing end-to-end Self Servicing BI Solution
- Evaluating different hardware and software to be used for the project
- Building the team and day-to-day monitoring of the initial project scope and activities
- Interacting with the Product Management Team and stakeholders as far as the requirement gathering is concerned.
- Reviewing the existing setup and database designing as far as logical and physical warehouse is concerned. Provide detailed instructions for adhering to processes laid as far as development is concerned.

# WinWire Technologies – Hyderabad

Aug 2010 – Dec 2011

**Client:** US Healthcare **Role:** Technical Architect

**Project:** Sales & Marketing BI Solution

Building and implementing BI solution using heterogeneous sources (SAP ECC & CRM, Siebel & SQL Server 2005 databases) being LOB applications of the organization. Implementation of features of SQL Server 2008 R2, Dashboards using PerformancePoint deployed in SharePoint 2010. Excel Services and complex SSRS canned reports are deployed extensively for slice and dice using analytics charts. This solution entails the total sales pipeline and marketing key metrics used for market research. The solution has ad-hoc reporting feature exposing SSAS cubes for users having full proof dynamic dimensional security feature. This comprehensive Sales & Marketing BI solution is meant for effective decision-making and favorable ROI.

Environment: Windows Server, SQL Server 2008 R2 (SSIS, SSAS & SSRS) & SharePoint 2010

#### Responsibilities

- Architecting the BI solution for Decision Support as per the business requirement
- Infrastructure assessment, audit and recommendations for the project
- Data warehouse creation using heterogeneous sources (SAP ECC, SAP CRM, Siebel & SQL Server 2005 databases)
- Excel Services and complex SSRS canned reports are deployed extensively for drilldown and analytics charts
- This solution entails the total sales pipeline and marketing key metrics used for market research
- The solution has ad-hoc reporting feature exposing SSAS cubes for users having full proof dynamic dimensional security feature
- This comprehensive Sales & Marketing BI solution is meant for effective decision-making, better TCO and favorable ROI
- SQL Server BI technology architect with technical consultant/leadership roles
- Innovation, On Time Delivery, Quality and Excellence are the main objectives towards successful implementation

**Client:** Manufacturing US **Role:** Technical Architect

Project: BI Solution on Reporting & Analytics with EDW

Building and implementing BI solution using heterogeneous sources (Oracle Apps, Avantis, Dynamics AX & CRM and SQL Server 2005 databases) being LOB applications of the organization. Implementation of features of SQL Server 2008 R2, Dashboards using PerformancePoint deployed in SharePoint 2010. SSRS canned operational and analytical reports for daily operations and for slice and dice using analytics charts and dashboards. This solution entails sales, invoicing, costing, budget and forecast key metrics used by executives and top management of the company. The comprehensive executive portal solution includes the Performance Point exploiting the ProClarity feature through SSAS cubes. Data consolidation is the major factor for design and development of DW. The executive portal and BI solution are meant for effective decision-making and favorable ROI.

Environment: Windows Server, SQL Server 2008 R2 (SSIS, SSAS & SSRS) & SharePoint 2010

#### Responsibilities

- Architecting BI solution for Decision Support as per the business requirement
- Infrastructure assessment, audit and recommendations for the project
- Data warehouse and OLAP creation using heterogeneous sources
- Design and develop SSRS canned operational and analytic reports are deployed extensively for drilldown and analytics charts
- This comprehensive sale, invoicing, costing, budget and forecast key metrics BI solution is meant for effective decision-making, better TCO and favorable ROI
- SQL Server BI technology architect with technical consultant/leadership roles
- Innovation, On Time Delivery, Quality and Excellence are the main driving force towards successful implementation

### Microsoft India (R&D) Pvt. Ltd. – Hyderabad

Jul 2007 – Aug 2010

**Organization:** RXD **Role:** Development Lead

**Project:** CSTAR & Marketing Intelligence Platform (MIP)

Implementation of MS SQL Server 2005 features, ASP.NET Dashboard/ Scoreboard using C# for BI solution. Development and implementation of BI reporting and analytics solution, showing different sales and marketing key metrics for budgeting/forecasting business trends, ROI/ROMI and effective decision-making. Comprehensive development effort includes developing Global Marketing Platform Applications (Research – Planning – Management – Execution – Analysis)

**Environment:** MS Windows Server 2003 (64 Bit), SQL Server 2005/2008 (SSIS, SSAS & SSRS), PerformancePoint Services 2007, MOSS 2007, Data Dude, Octopus & Team Build.

#### Responsibilities

- Analysis, Designing, development, Performance Tuning, ETL Optimization, Cube Creation, Complex MDX implementation, Canned reports creation, PPS 2007 dashboard implementation, SharePoint integration and Complete Build ownership
- Reduced dataset implementation for ETL execution in the development cycle Sales Data Acquisition from Siebel for advanced analytics
- Leading key initiatives, modeling and applying software engineering methods and techniques to the design, definition, development, evaluation, integration, qualification and/or support of complex products, tools, or technologies in one or more areas of expertise
- Individual contributor, often assuming technical and project leadership roles
- Subject Matter Expert (SME) in a specific application and technology
- Partnership, Collaboration, Innovation, Quality and Excellence are the ideal principle for this function

**Organization:** SMD **Role:** Lead Operations

Project: MSE Suite of Applications/ITSM

The Microsoft Services Enterprise (MSE) Suite of Applications which includes Siebel, Siebel Analytics, and Call Logging Tool & ITSM are critical 24X7 highly available mission critical applications with 99.9 % uptime.

**Environment:** MS Windows Server 2003/2008/2008 R2, Hyper-V, SQL Server 2005/2008, Siebel, Siebel Analytics, MetaStorm & ITSM

### Responsibilities

- End-to-end critical application support as SME (L3).
- SQL DBA responsibilities which include high availability features, mirroring, clustering, log shipping, replications and BCDR (Business Continuity Disaster Recovery) implementation and system audit of mission critical 24X7 applications
- Actively involved in change, build, release and vendor management activities
- Leading key initiatives, modeling and applying software engineering methods and techniques to the design, definition, development, evaluation, integration, qualification and/or support of complex products, tools, or technologies in one or more areas of expertise
- Individual contributor, often assuming technical and project leadership roles
- Subject Matter Expert (SME) in a specific application and technology
- Partnership, Collaboration, Innovation, Quality and Excellence are the ideal principle for this function

#### Unisys Global Services India – Bangalore

May 2006 – Jun 2007

Clients: Healthcare, Logistics & Global Sourcing

Role: Team Lead

**Project:** SQL Server 2005 BI Practice for Multiple Clients

Data warehousing and OLAP design, Implementation of MS SQL Server 2005/2008 features, SharePoint and ASP.NET Dashboard/ Scoreboard using C# for BI solution. Based on user hierarchy and geographical hierarchy. Development and implementation of SharePoint Scorecard, showing different metrics for forecasting business trends for better decision-making.

Environment: Windows Server 2003, ASP.Net, MOSS 2007, SQL Server 2005 & VSS

#### Responsibilities

- Requirement gathering and analysis
- Involvement in estimation, architecture and pre-sales activities
- Client interaction and coordination, POCs, up-gradation/migration analysis, documentation, performance monitoring. tracking & tuning
- Working independently or leading team as per project engagement
- Active participation in peer review
- Considered a technical authority in a specific application and technology

### Multiple Organizations - Kolkata

Feb 1998 - Apr 2006

Role: Faculty/Programmer Consultant/Project Coordinator

**Environment:** Win NT, UNIX, DOS, FoxPro, ASP.NET, C#, SQL Server 2000/2005, DTS, SSAS & SSRS **Responsibilities** 

- Academic training design, conduct & coordinate
- Coordinate with corporate training departments & academia
- Requirement gathering, analysis and prioritization
- Estimation time and cost, scope management
- Team monitoring, resource deployment, organizing meetings and project delivery
- Change and release management activities
- Client interaction, coordination, documentation and quality assurance review
- Technical reviews and adherence to coding standards and best practices
- Team guidance and mentoring