**PARIVALLAL MARIAPPAN**

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**PROFILE SUMMARY**

A seasoned Data Architect with more than 15 years of experience specializing in architecting robust data infrastructure and leading high-performing teams to deliver scalable solutions. Expertise in data modeling, ETL processes, database querying, and cloud technologies. Designs and implements data pipelines driving actionable insights and supporting business objectives. Track record includes optimizing data workflows, ensuring data integrity, and fostering a culture of innovation. Excels in collaborating with cross-functional stakeholders to translate complex requirements into efficient data solutions. Commits to continuous improvement, leveraging emerging technologies to stay ahead in the evolving data engineering landscape.

**CORE COMPETENCIES**

* Skilled in developing and executing strategic data plans aligned with organizational goals.
* Lead and mentor a team of data engineers, providing guidance and fostering collaboration.
* Execute legacy on-prem database migration carefully, ensuring data integrity, security, and compliance, while also optimizing performance and minimizing downtime.
* Extensive experience with T-SQL, including querying databases, creating stored procedures, functions, views, and triggers.
* Skilled in data manipulation and transformation using SQL queries, including joins, subqueries, common table expressions (CTEs), and window functions.
* Proficient in leveraging Azure cloud services such as Azure Data Lake Storage, Azure Synapse Analytics, and Azure Cosmos DB for building scalable and reliable data solutions.
* Completed the Google Professional Cloud Architect Training.
* Skilled in designing and implementing data architectures leveraging AWS Services such as Amazon S3, Amazon Redshift, and Amazon DynamoDB, ensuring high availability, security, and performance.
* Strong understanding of database architecture and design principles, including normalization, denormalization, and data modeling.
* Familiar with using Databricks notebooks for data manipulation, transformation, and analytics tasks.
* Knowledge of Snowflake architecture and features, including virtual warehouses, data sharing, multi-cluster warehouses, and Snowflake-specific SQL syntax.
* Strong communication skills to interact effectively with cross-functional teams and stakeholders.

**SKILLS HIGHLIGHTS**

Data Engineering Big Data Technologies ETL (Extract, Transform, Load) Processes

Data Warehousing SQL and NoSQL Databases Data Modeling & Integration

Python/R/Scala Programming Distributed Computing Cloud Platforms (AWS, Azure, MS Fabric)

Agile Development Methodologies Data Pipeline Management Data Governance & Quality Assurance

***Technical Skills***

* **Databases:** SQL Server, PostgreSQL, MySQL, AWS DynamoDB, Redshift, MongoDB, AWS RDS.
* **Data Platforms:** Snowflake, Data warehouses, Data Lakes, Data Marts, Databricks, S3, EC2, Lambda, Glue, SQS, SNS, Cloud watch, Step functions, Redshift, DynamoDB, KMS.
* **Azure:** Data Factory, Azure Synapse Analytics, ADLS Gen2, Azure COSMON, Azure Blob, Azure SQL DB.
* **Messaging:** Apache Kafka, TIBCO EMS.
* **ITSM Tools**: ServiceNow (Orlando & Paris) and BMC Remedy v20.
* **CMDBs:** ServiceNow CMDB, Remedy CMDB, and In-House CMDB.
* **ETL Tools:** AWS Glue, SSIS, Talend, Pentaho, dbt.
* **Microsoft Technologies:** MSBI ETL Tools (SSIS, SSRS), PDW (Parallel Data warehousing), Web Forms, .Net Framework, MS BIDS, SQL Server (Data Tools), Visual Studio.
* **Languages & Web Technologies:** Python, VB/C# .Net, ASP.Net, Web/REST Service, JavaScript, HTML, XML, CSS.
* **Configuration Tools:** ESCM JIRA, VS TFS 2012 and VSS.

**PROFESSIONAL WORK EXPERIENCE**

**Analytics Architect –** S2 Integrators, Alpharetta GA  **May 2024 – Present**

***Project:*** Life Science Data Analytics| ***Responsibilities***: Design and Implement Data Architecture

* As an Analytics Architect, I led a dedicated team in designing and implementing a comprehensive data solution that empowers organizations to leverage their data effectively. I architected and implemented a highly scalable data analytics platform using Microsoft Fabric, focusing on enabling advanced analytics and AI capabilities.
* I was responsible for building and optimizing data lakehouses and data warehouses using the Medallion Architecture, which enabled high-performance analytics with both structured and unstructured data. Through dynamic metadata-driven pipelines, I ensured seamless data integration and transformation, allowing for efficient processing of large datasets across different stages.
* Data extraction from SAP S/4HANA, BW, and CDS Views was performed using Azure Data Factory, which facilitated the loading of raw data into the system. The core of our data transformations, however, was done within Microsoft Fabric Notebooks, where we developed and executed advanced transformation logic to clean, enrich, and structure the data for downstream analytics.
* In addition to the transformation process, I integrated auto CI/CD deployments, ensuring faster and more reliable delivery of data solutions. This included automating the deployment of data pipelines and the testing of transformations, resulting in improved operational efficiency and reduced time to insight.
* Furthermore, I enabled AI capabilities using Azure Foundry, creating a robust ecosystem for machine learning models and predictive analytics, fully integrated with the data platform. The flexibility of Microsoft Fabric Notebooks also allowed for seamless collaboration among data scientists and engineers, enabling experimentation with models and analytics workflows.
* In my leadership role, I fostered a culture of collaboration, innovation, and continuous improvement. I worked closely with cross-functional teams to ensure that the architecture not only met the current analytical needs of the business but was also designed for future scalability and adaptability.

**Data Engineering Advisor –** Fiserv Technology Services (FTS), Alpharetta GA  **Apr 2016 – May 2024**

***Project:*** Centralized CI Database for FTS | ***Responsibilities***: Design, Develop & Maintain

* Manage Fiserv's CMDB, aligning with ITSM strategy, and meeting multinational stakeholder needs effectively.
* Lead a team of developers, developing robust data pipelines for imports, integrations, and deployments.
* Act as Application Portfolio SME, innovating to achieve business objectives efficiently.
* Drive CSDM adoption, refining processes to enhance CMDB accuracy, and promoting cross-functional collaboration.
* Evaluate process effectiveness, drive improvements, and ensure consistent execution organization-wide using Scrum framework.

**Project Architect**

***Project***: SDP | ***Environment***: ADF, Azure Synapse Analytics, ADLS Gen2, Snowflake & Python ***Responsibilities***: Design, Develop

*Server Data Portal (SDP) is an In-house developed data lake to generate data quality reports about internal servers.*

* Spearheaded the development of a server data portal infrastructure leveraging Azure Data Lake Storage (ADLS) Gen2, Azure Synapse Analytics, and Azure Cosmos DB on the Microsoft Azure cloud platform.
* Architected and implemented a scalable and performant data storage and analytics solution using ADLS Gen2 for storage, Azure Synapse for data warehousing and analytics, and Azure Cosmos DB for globally distributed NoSQL database capabilities.
* Successfully integrated diverse data types (structured, semi-structured, unstructured) into ADLS Gen2, enabling advanced analytics with Snowflake. Implemented real-time data processing and analytics using Azure Cosmos DB, providing low-latency access to data.
* Developed and maintained dbt models to create structured, reliable, and performant data sets in Snowflake, optimizing query performance and data integrity.
* Designed and implemented data models in Snowflake using best practices, such as star schema or snowflake schema, to support analytical reporting and business intelligence needs.

**Project Architect**

***Project:*** DAIS for FTS | ***Responsibilities:*** Design, Develop & Maintain

*DAIS is the Data Lake developed using AWS to support global infrastructure operations. It enables agile data ingestion and analytics, support for semi-structured and structured data, big data support, data governance practices ranging from experimental data sets to fully governed data marts, visualization and real-time and historical (batch) analytics, predictive analytics and machine learning.*

* Collaborate with data owners, streamline data lake onboarding, and develop ingestion processes for operational data stores.
* Create a feed framework for file distribution, produce technical documentation, and craft prioritized user stories.
* Designed and implemented a server data portal on AWS, leveraging services like Amazon S3, Amazon Redshift, AWS Lambda, AWS Glue, Amazon SQS, and Amazon SNS for scalable and reliable data solutions.
* Ensured high availability and performance by deploying and managing AWS resources using Infrastructure as Code (IaC) tools like AWS CloudFormation.
* Implemented event-driven architecture and messaging services using AWS Lambda, Amazon SQS, and Amazon SNS to enable real-time data processing and communication within the server data portal infrastructure.

**Tech Lead –** MST (Macy’s System & Technology), Johns Creek, GA **May 2015 – Apr 2016**

*Performance Scripting & Testing, DBA*

***Project:*** D2C (Direct to Consumer) Holiday SmartPush | ***Environment***: VS2012, SQL Server 2012

*D2C projects include all the applications developed by Macy’s development team to go through performance testing.*

* Conducted performance testing with HP LoadRunner, ensuring stability, generating reports, and coordinating with offshore teams.
* Managed data distribution using TIBCO EMS, optimizing transmission efficiency as a DBA in the SmartPush project.

**Tech Lead –** Hexaware Technologies **Dec 2013 – May 2015**

***Project:*** EDW R2 (Parallel Data Warehousing) | ***Environment:*** VS2012, SQL Server 2012.

***Client & Location***: Ernst & Young, Alpharetta, GA

*At Ernst & Young, we're developing a centralized system to capture source system metadata and automate the migration of data to a parallel data warehouse. This involves multiple stages and transformations for seamless flow and accuracy.*

* Led client meetings, managed loading batch files, and automated Stored Procedure creation with .NET.
* Developed a dynamic editing tool in .NET and maintained ETL Packages with C#.NET support.
* Offered technical support, debugged stored procedures, and scripted automation tests for performance initiatives.

**Tech Lead –** Mahindra Satyam  **Jun 2012 – Dec 2013**

***Project:*** Data Quality Management | ***Environment:*** WBHP (Power Builder Tool), VS 2010, InnerLogix and SharePoint

***Project:*** ILX Adapter Development | ***Environment***: XML and SharePoint 2007

***Client & Location:*** Chevron, Lafayette, LA

* Directed onsite-offshore coordination, facilitating meetings while enhancing project alignment through close collaboration.
* Provided expertise in configuration management, query optimization, and DQM best practices for WBHP, WPH projects.
* I streamlined manual processes by leveraging Windows-based tools that I designed using .NET technologies. These custom tools significantly reduced costs by automating data analysis processes, resulting in savings exceeding half a million dollars pa.

**Microsoft Developer –** Mahindra Satyam  **Aug 2010 – May 2012**

***Client***: Chevron, India | ***Project:*** Product Engineering, Regulations and Technology (PERT) | ***Environment:*** SQL Server 2008, SSIS, SSRS, VB .NET, Microsoft BIDS | ***Project:*** Commercials & Industries Business Management System | ***Environment:*** SQL Server 2008, SSIS, SSRS, VB .NET, Microsoft BIDS | ***Project:*** Sites, Networks & Projects | ***Project:*** Commercials & Industries Business Management System | ***Project:*** Sites, Networks & Projects | ***Environment:*** SQL Server 2008, Visual Studio 2008, VB .NET

* Successfully migrated NAFQIP app SQL Server 2000 packages to 2008, ensuring uninterrupted functionality.
* Enhanced app performance by rewriting active script tasks and crafted client specific SSRS reports.

**Senior Software Engineer –** Satyam Computer Services Ltd.  **June 2007 – July 2010**

***Client:*** FIFA, Bangalore, India | ***Project:*** FIFA EMS (Event Management System) | ***Environment:*** Visual Studi0 2005, C#/VB .NET, SQL Server 2005, JavaScript, Web Services, XML, User Controls, VSS, HTML, CSS, Telerik Controls, Agile Methodology.

* Engaged in full project lifecycle, developing web apps in C#/VB .Net, SQL Server, and conducting user story discussions.
* Created and debugged intricate SQL Stored Procedures, and managed post-launch production support for applications.
* Optimized performance, tested load capacity with Load Runner, and executed rigorous testing in AGILE SCRUM methodology.

**ACCOMPLISHMENTS**

* AWS Cloud Practitioner and ITIL Certifications.
* Promoted as Advisor at Fiserv.
* Earned 10+ Living Proof awards at Fiserv for exceptional contributions benefiting other teams.
* Won a Hackathon award for delivering an automation security solution, recognized by the CTO.

**EDUCATION**

* **B. E. Information Technology –** Anna University, India

**PERSONAL DETAILS**

* **Visa Details:** H1B | Valid till 06 JUN 2027 | **Current Location:** Cumming, GA