



# HARENDRA SINGH

Big Data Solution Architect – Data Engineering & Transformation

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## IT Tools & Technologies

- Programming Language** - Scala, Python, Core Java, SQL
- Databases** - MySQL, HBase, Azure, SQL DB, Oracle DB
- Big Data Frameworks** - Hadoop, Spark (Scala | Java), PySpark, Spark Structured Streaming, Spark SQL, Hive, Kafka, Oracle Bigdata Adapter
- Data Security** – Kerberos, Voltage, PGP
- Cloud Services** - Azure Data Bricks, ADLS, Lakehouse, Snowflake, Azure Key Vault, Azure Devops CICD

## Certifications

- Microsoft Certified:** Azure Solutions Architect Expert
- AWS Certified:** Solutions Architect - Associate
- Microsoft Certified:** Azure Data Engineer- DP201 & DP202
- Databricks Certified:** Accreditation
- Databricks Certified** Data Engineer
- Snowflake Certified:** SnowPro Core
- Generative AI Fundamentals** DataBrick Accreditation
- AZ900-** Azure Fundamentals Certified.

## About Me

Big Data Cloud Solution Architect with 14+ years of expertise in architecting and implementing scalable and robust cloud-based big data solutions. Results-driven and passionate about exploring the latest technologies, seeking opportunities to leverage my expertise and skills to contribute to the success of visionary organizations.

## Work Experience

### Fiserv India | Oct 2018 - Present

**Project 1: Data Commerce Solution-Fiserv Small Business Index | Single Auth| DQA| Consumer Keying and Linking | Consumer 360 Solution| March 2021-Present**

#### Advisor - Data Architecture | Domain: Banking

- FSBI aggregates consumer spending activity across millions of U.S. small businesses, using transactional sales data to gauge growth- [Fiserv Small Business Index](#)
- Implemented large-scale data processing solutions with expertise in strategic partitioning and harnessing Spark's in-memory capabilities. Optimized data ingestion using cutting-edge technologies like **Data Bricks, Azure ADLS, and Kafka**, ensuring efficient handling for streamlined joins and transformations.
- Integrated the Consumer 360 Solution to provide comprehensive consumer insights.
- Designed and implemented a **versatile data ingestion utility using Data Bricks**, enabling seamless data movement between on-premises and cloud environments as well as on-premises to on-premises data transfers

### Project 2: Report View Product | Jan 2020- March 2021

#### Advisor - Data Architecture | Domain: Banking

- Spearheaded the design and deployment of a cutting-edge cloud-based big data solution leveraging technologies such as Apache Spark, Data Bricks, Azure Data Lake Storage (ADLS)
- Contributed significantly to Fiserv's client acquisition and retention strategies by providing actionable insights and data-driven decision-making capabilities

### Project 3: Card Console Management | Jun 2019 - Jan 2020

#### Team Lead - Data Architecture | Domain: Banking

- Architected and developed a highly scalable Spark Streaming end-to-end pipeline to process real-time events related to cardholder information for Fiserv's financial institution clients.
- Successfully implemented a comprehensive end-to-end streaming solution utilizing Hadoop, Spark, Kafka, OGGBD, and Azure SQL database.
- Successfully deployed Oracle Big Data Adapter setup for real-time data ingestion from the Tandem system to a Kafka topic.
- Successfully implemented a **robust Disaster Recovery solution** for Spark Streaming applications using Kafka SRM tool, serving multiple business units across Fiserv.
- Implemented a **Kafka data parsing utility** for validation, resulting in a 5% reduction in effort during testing and validation phases across Fiserv.

## Awards & Recognition

- Recognized as "**Top Performer of the Year-Titan Award**" for successfully leading Report View product innovation and architects in delivering a large-scale cloud-based reporting solution for Fiserv FI clients, significantly contributed to enhancing Fiserv's client acquisition and retention strategies.
- Received "**Outstanding Innovation Award**" for designing and implementing a real-time data streaming solution using Apache Kafka and Spark, resulting in a 60% reduction in data latency and improved data processing efficiency for fee calculation and settlement process.

## Training & Development

- Facilitated workshops as a **Kafka and Spark Expert** during the 2-day event, imparting specialized knowledge to participants
- Conducted training sessions and workshops for team members to **enhance their skills in cloud computing, big data technologies, and best practices.**

## Education

- **Master of Computer Application** Amity School of Computer Science, Noida Sec-125 | 2011

### **Project 4: Debit Card Modernization | Oct 2018 – Feb'2021** **Analyst - Data Architecture | Domain - Baking**

- Led the design and development of a mission-critical end-to-end Debit data architecture using the big data ecosystem to efficiently handle real-time settlements and debit card fee calculations for Fiserv's esteemed clients.
- Developed Spark, Kafka structured Streaming consumer application for debit data processing.
- Played a key role in setting up and configuring Kafka clusters, topics, and partitioning strategy.
- Designed and implemented a versatile utility for real-time data ingestion from the tandem system to Kafka, utilizing Oracle Big Data Adapter, resulting in a **remarkable 50% reduction in development efforts** and a **5% cost savings** for the project. This utility has been adopted by multiple business units across Fiserv.

### **Team Lead | Prokarma India, Hyderabad | Jul 2017 - Aug 2018** **Project: Energy Management Solutions (EMS) | Domain - Energy**

- Implemented ETL pipeline to process energy data using Sqoop, PySpark SQL, HDFS, HBase, HIVE and extensively for Prokarma EMS product.

### **Senior Software Engineer | HCL Technology Ltd, Noida | Mar 2016 - Jun 2017** **Project: Dispute Expert | Domain - Baking**

- Established a comprehensive Spark Structured Streaming consumer application using Kafka for the Dispute Expert Correction module

## Key Achievements

- **Designed and Developed Enterprise-Scale Databricks Spark Ingestion Framework for Azure Data Lake.** Created a modular Spark framework to ingest data from multiple enterprise sources (**Oracle, SQL Server, MySQL, Netezza, Snowflake**) and diverse file formats (ACH Payments Files, Fixed-length, CSV) into Azure Data Lake. **Supported 10+ teams across 5 business units, reducing onboarding time by 50%. Standardized ingestion workflows** to minimize manual effort, enhance pipeline resilience, and accelerate analytics delivery across the enterprise.
- Led the implementation of a cloud-based big data solution for the enterprise-level Report View product at Fiserv, driving improvements in client acquisition and retention. Successfully migrated 100+ financial institution clients from the Existing Notulus product to Report View, resulting in an **annual revenue increase of \$4 million.**
- Spearheaded the design and delivery of an innovative real-time streaming analytics platform with Apache Kafka/Spark at Fiserv. This platform is set to replace the critical legacy fecal and settlement banking process, **impacting 5% of Fiserv's annual revenue from the fee calculation unit.**
- Pioneered a groundbreaking **Kafka-COE initiative, empowering 70+ associates with advanced skills, resulting in a significant increase in project acquisitions and noteworthy revenue** expansion for the Data Analytics Business Unit

## Previous Employment

- **Software Dev Analyst | Dell International Service | Dec 2013 - Feb 2016**  
**Project: HIS-Report Modernization | Domain - Healthcare**
- **Software Engineer Trainee | Damco Solution India, Faridabad | Nov 2011 - Dec 2013**  
**Project: United Automobile Insurance**
  - Designed and implemented a Job Monitoring Tool that enables proactive identification and resolution of job issues, **resulting in a remarkable 30% reduction in monthly incident counts.**