Shishir Sarkar



Versatile, high-energy technocrat with the merit of executing prestigious Information Technology projects of large magnitude within strict time schedules, targeting **senior level assignments** in **Software Development**, **Technical and Solution Architecture** with an organisation of high repute

E-Mail: shishir.sarkar406@gmail.com GitHub: https://github.com/shishir11 LinkedIn: https://www.linkedin.com/in/shishirsarkar1 Mobile: +91-7974054016 /8600695064

PROFILE SUMMARY

- Strategic Leader offering nearly 13 years of experience in building Enterprise Systems using Java, J2EE, Scala, Big Data, AWS, React-JS Technologies and applying Best Practices (GOF Design Patterns, j2ee Design Patterns), OOPs, Principal and Standards as suggested in software engineering practices
- Developed software solutions by conferring with users, studying systems flow, data usage and work processes
- Proficient in Software Development Life Cycle from requirement analysis to system study, designing, coding, development, debugging, documentation and implementation
- Customer-centric professional with excellence in driving overall solutioning based on customer's business and technical requirements
- Expert in writing Reporting Doc Skill like Job Metrics, Requirement, Design, Change Request, Method of Process, and Release for Software Development, Testing, Development Estimate (WBS), Design Doc, Mop and Release Report
- Followed project life cycle methodology defined under process framework; ensured that customer deadlines were met
 Architected and designed solutions for product, managed process set-up & development and drove product vision, strategy, roadmap and release plans
- Experienced in evaluating technology alternatives, selecting technology, and developing recommendations for system solutions that ensure appropriate integration with the technical architecture
- Created solutions for technical specifications, installed software and deployed customizations
- Comprehensive experience in designing procedures for change in project operations to design technical solutions, ensuring business functionality adherence and enhancing competitive advantage
- Established an architect function to ensure ample focus on on-going activities and quality improvements on an architectural level in the existing code base
- Key People Leader, who has successfully led and motivated team towards growth & success in the organization; created a clear view of future through coaching and execution

KNOWLEDGE PURVIEW

Extensive exposure in:

- o Software development methodologies/ processes using Agile Scrum, Iterative & Waterfall Mode
- Architectural knowledge of design & development of Service Oriented Architecture, Microservice-Based and Big Data Architecture, SAAS, SOAP Based Architecture, Cloud Architecture and Enterprise Integration Architecture using GOF Design Pattern and J2ee Design Pattern
- Market leading database servers like Oracle, DB2, Postgres and MySQL
- o Development of application on Test Driven Development (TDD) approach using Junit, Jmock and Easymock
- Monitoring, tuning, optimization, trace memory, thread leakage, memory management, JVM command tool, writing of low-level latency, high throughput and resilient code
- Gained international exposure by working with US & UK client, communicating through daily stand-up Scrum meeting analysing the story and convincing business logic to client/ different team member and participating in development retrospectives to identify areas of improvement
- Experience of successfully performing project in BFSI, Telecom and Mobility Domain
- Acted as a key member in the current company by using proof of concept in Java for their pre-sales activity

PUBLICATIONS

- Published paper in International Journal on:
 - "Cluster Performance Calculator for High-Performance Distributed Web Crawler", under paper ID#: IJETCAS 14-345
 - **"Monitoring & Feedback Analysis Framework for a High-Performance Distributed Web Crawler**", under pezzottaite journals
- Big Data Technology blogs published in the famous organization portal called as KnowledgeHut

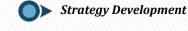
I CORE COMPETENCIES

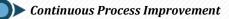
Software Development

Project Management

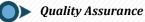
Testing

Solution / Technical Architecture





>> Design and Development



🕟 Team Building & Leadership

WORK EXPERIENCE

Sep'19 to Present with Core Compete Pvt. Ltd. as Principal Software Architect

Product Name: Credit Decision Processing System/ Client: HSBC

Business Domain: BFSI

Language: Java 1.8, Scala 2.11, Python 3.7, React JS

Cloud Environment: GCP

Technologies: Spring Security, Spring Boot, Spring JPA, ELK, Postgres, AWS (SMR, EC2, S3, RDS), Spark Core, Spark Data-Frame, JMC, Junit, Mockito, Kafka, GCP, Docker, Kubernetes, Jenkins, SonarQube, React-JS, JSX, node-JS

Design Pattern: Non-blocking Asynchronous Microservice, Real Time Microservice, ETL based Pipeline

Description:

Decision Processing Service (DPS) is an integrated suite of products that supports credit decisions across the lending lifecycle which includes but is not limited to marketing and underwriting new accounts, checking regulatory rules to ensure compliance, servicing existing customer requests, and generating offers to existing customers that increase the profitability of the portfolio. This solution processes credit requests for PFS (Personal Financial Services) and CMB (Commercial Banking) products

Roles:

- Developing required high-level product specification & design doc which also encapsulates HLD, LLD and creating MVP, based on design specification and back-to-back discussion with different stakeholder
- Analysing key technology stack based on research, cost, reliability and identifying hardware/ software infrastructure
- Designing and developing:
 - Non-Blocking Async Microservice, Event Driven (WebSocket) Microservice based architecture
 - UI to check, compare, validate, approve, migrate and monitor the ETL Job
 - Vital UI component using ReactJS, JSX, AG Grid and Node JS
 - ELK stack on various instance of the running Microservice in the AWS and GCP cloud
 - **Big Data architecture** to manage the **ETL pipeline** (validation -> data cleansing -> data curing -> data transformation -> data standardization -> data loading) to run the **credit job** using **Spark and Scala**
 - In-house common library platform for Elastic Search DAO, AWS \$3, SAML Auth and authorization-based operation
 - Messaging infrastructure using Kafka and Zookeeper
 - Jenkins pipeline to build Docker image and deploying Docker image in Kubernetes in GCP Cloud and pipeline, which contribute to enhance the DevOps practices
- Performing re-architecture of the audit pipeline using python and elastic search and implementing encryption approach to secure the ENV details used by micro-services
- Creating Proof of Concept (POC) for Center of Excellence (COE) on emerging technologies and for client proposals
- Contributing in **fixing** the **sonar** (static code analyser), **NexusIQ** (dependency flaws) and **Checkmarks** (security flaws) **issue**

Jan'17 to Jul'19 with Tavant Technologies as Technical Architect

Product Name: GVAP R8/ Client: Experian

URL: http://www.experian.com/consumer-information/analytical-sandbox.html

Business Domain: BFSI

Language: Java 1.8, Scala 2.11, Python 3.7.0

Environment: AWS

Technologies: Hadoop CDH 5.0.6, AWS (EC2, S3), Spark (2.2) Streaming, Spark SQL (Data Frame, Dataset), Spark Core, Amazon AWS (S3, dynamo-DB), Kafka, Hive, JVMProfiler, SOAP based Services, Spring (IOC, Boot, Transaction Manager), Junit, Mockito, Concurrent API, NodeJS

Description:

Experian credit score calculation application is built on Cloudera Big Data and Amazon AWS cloud platform which offers suite of products to Experian's customers (e.g.: Credit Report, Market Prospecting, Account Review, Trend View, Campaign). This product is based on B2B model

Roles:

- Contributed as Technical Architect/ Developer for Experian Financial Credit Rating Services based in US and UK market
- Acted as key player with the team of Architect to design workflow and architecture of credit score calculation using Java, Scala, Python, Big Data and Cloud technology
- Designed and developed system to:
 - Check validation error, take decision, coded the requirement, tested & deployed it on dev & UAT cluster environment using Jenkins CICD and Automation Pipeline
 - Perform curing process which conducted the data calibration, coded the requirement, tested & deployed it on dev and UAT cluster environment using Jenkins CICD and Automation Pipeline

Designed and developed:

- > Workflow of data ingestion process for Amazon S3, Hive, Sqoop and Oozie
- System that has the ability to check the validation error and was able to takes the decision, coded the requirement, tested and deployed it on dev and UAT cluster environment using Jenkins CICD automation pipeline
- System to perform curing process which conduct the data calibration, coded the requirement, tested and deploy it on dev and UAT cluster environment using Jenkins CICD automation pipeline
- System to perform **pinning process** on data which eventually enhanced and cleaned **data** by checking **historical record**

Analyzed, designed, coded and deployed:

- New ingestion system which has couple of modules pre-processing and validation to flatten the xml data and validate the information
- > System to perform **state calculation process** on **data** which eventually perform the **logical** and **state operation** on **data**
- System to perform the pre-processing and post-processing operation on data which was required to make compatible to send input for credit score calculation
- System to perform aggregation operation which was considered as a request input from UI, eventually considered as an input criterion to trigger the credit score calculation operation
- System to perform composition operation which was considered as a request input from UI, eventually considered as an input criterion to trigger the credit score calculation operation
- System to perform Selection Process used for reducing a set of incoming bureau records based upon defined criteria using Spark Data Frame
- Implemented process improvements (Automation, Performance tuning, Optimize workflows)
- Acted as key player in developing GVAP (UI) which performed Extract, Transform, and Load (ETL) job to pull information from the source online bureau database and added it into the GVAP data warehouse
- Successfully set-up dev and UAT cluster environment using Jenkins CICD automation pipeline using Jenkins CICD automation pipeline

Designation: Technical Architect and Lead Big Data Developer

Product Name: Fin-Connect

URL: https://www.tavantvelox.com/product.html

Environment: AWS

Language: Java, Scala, ReactJS, Typescript, JavaScript

Technologies: JDK1.8, Spring Boot based Micro-services, Spring JPA Repository, Oath with JWT, Angular-JS 2, Hadoop CDH, React-JS, 5.0.6, Spark 2.2, Mongo-DB, AWS (EC2, S3), Spring Messaging Services, Micro-service Architecture

Description:

This product specifically targets the Mortgage domain customers such as Financial Institution, Investment Bank and third-party customer and provides superior level of interaction and mortgage processing between customer and investor.

Roles:

- Analysed business requirement to implement mortgage product for banking system, identified all business use cases and performed effectively with Business Architect for Mortgage domain
- Developed high level design diagram, component level design diagram to address complete ecosystem and created different library (AWS-S3, Authentication and Authorization, packaging library) to use across the product line
- Designed and developed the messaging infrastructure using Apache Camel using Enterprise Integration Architecture

Jun'15 to Jan'17 with ITC Infotech Ltd. as Technical Lead

Project Name: ZeaS ETL tool/ Client: Santander bank UK

Environment: Scala, JDK1.8, Spring (Boot, Rest, IOC, AOP, Security, Token), Git, JIRA, BAMBOO, MySQL, Cassandra, Spark, Sqoop, Hive, Oozie, RIAK, JUNIT, Mockito, Powermock

Description:

Basically, this is ETL product which is developed and customized for Santander Bank. The concept of this tool is performing ingestion process on their credit business data.

Roles:

•

- Designed:
 - Architecture and developed the workflow of RDBMS based ingestion process
 - Architecture and developed the workflow of file-based ingestion process
 - Architecture, developed Oozie based scheduler job for extract and transform information for transactional record Developed:
 - Spark based Oozie job student performance JSON data and uploaded it to Amazon S3 bucket
 - Spark based Oozie job extracts the learning activity accessed data and discussion data from decomposed tables and added it into HBase
 - Spark based Oozie job, decompose required data learning activity accessed and discussion messages from UI-client log and populates it to respective tables
 - Spark based Oozie, job pulled data from CONODS, ran aggregation on data and results are populated to Hbase
 - Critical micro-services like instrumentation, roaster, proxy and SSO services
- Implemented:
 - Swagger Maven plug-in, generated JSON API documents during a Maven build
 - SSO services using Spring and Token authentication
 - Memcached for distributed caching strategy on server side
- Designed and implemented swagger maven plug-in that generated JSON API documents during maven build and executed SSO services using spring and token authentication
- Steered the Implementation of Memcached for distributed caching strategy on server side and developed critical microservices like instrumentation, roaster, proxy and SSO services
- Contributed as **key player** in implementing **multitenant functionality** in **existing micro services**

Nov'14 to May'15 with Sri Prathinik Consulting

Project Name: BlackBerry

URL: http://global.blackberry.com/en/apps, https://appworld.blackberry.com/webstore

Environment: Jdk1.8, Java Enterprise Edition, Jersey, Spring (Rest, MVC, IOC, AOP, Security, Batch, Scheduler), Amazon AWS Server, S3, SVN (Perforce P4), Oracle, Junit, Mockito, Powermock, Solr, Kafka, Zookeeper, Hadoop, Mule ESB **Design Pattern**: Proxy, Circuit Breaker, Façade, Proxy, Singleton, Micro-Services Architecture, Machine Learning

Description:

Managed project of Cloud-based architecture Microservices-based architecture developed in Java, the team size was 15 where the budget of this project was 1, 50,000.00\$. Developed new feature of existing service which boosted the popularity of this Blackberry service in Global market and company got the growth in terms of revenue as well. Main responsibility was to work with Architecture Team, apart from architecture is Java Garbage Collection Tuning, Java Memory Monitoring Tools, Java Garbage Collection Tuning, Monitoring of Java Production Server. Multiple live data centers have been architected to ensure maximum uptime of the cloud applications and to create a fault tolerant, highly available, and redundant system.

Roles:

Designed & developed:

- Publish Subscribe Services and Search Services using Apache Solr & Cassandra
- Services and Lead Mgmt./ Approval Process
- Administered email notification, templates engine and steered implementation of ETAG (Entity Tag) Caching Strategy on client side
- Designed architecture and implemented API Explorer (web application) for visualizing Rest Services using Swagger API
- Collaborated with team to design the cloud infrastructure for proxy, loan balancer using spring cloud for deploying micro services architecture as spring boot application

Nov'13 to Oct'14 with Global Logic Company as Senior Java Developer

Project Name: Sprint Push to Talk

Environment: Java Enterprise Edition, Servlet-Filter, Spring (IOC, AOP, Batch), IBM XDMS Framework, SNMP Agent, XQuery, LDAP Query, EMS, NMS, IBM DB2, IBM WebSphere Server, JAXRS, JAXWS, Web Method, SVN, JIRA, BAMBOO, HTML 5, LDAP, JSF,ICE-Faces, SOAP-UI, Junit, Mockito, Powermock, XML and XSD Processing, EhCache, SVN, Grizzly

Design Pattern: Factory, Façade, Chain of Responsibility, Proxy, Factory, Singleton, Observers, SOA Architecture

Description:

Managed project of Spring Nextel (Group Calling services) name is Push to Talk developed in Java, the team size was 10 where the budget of this project was 1, 50,000\$. Developed new feature of existing service which boosted the popularity of this service in US market and company got the growth in terms of revenue as well.

Roles:

- Developed SOAP based API to coordinate with NSN (Nokia Siemens Services) components that was used to validate and authenticate the QCHATID assigned to each Sprint PTT customer
- Executed new multithread-based component using concurrent API to manage every request in separate thread and functioned on performance improvement part to vertical scale the application on code level, Dao level and JVM level
- Modified components which were part of business intelligence of existing application; developed, tested & implemented APNS API as major CR release to support the iOS8 with existing architecture using jdk8

Jul'12 to Nov'13 with Persistent System Limited as Senior Java Developer

Project Name: CalcEngine

URL: http://www.advisory.com/international

Description:

Developed a CalcEngine project for Advisory Board Company. Advisory Managing Team was facing a problem of delay calculation of their client requested bills because of volume of bills calculation requested submitted daily, earlier they were having a legacy system which took a long time. This project is in Pricing and Finance domain.

Environment: JRocket1.6, Java Enterprise Edition, Servlet, Spring Core, AOP, Spring AOP, Spring Integration, JPA Eclipse Link, PostgreSQL, Oracle RDBMS, Oracle Coherence, GIT, RabbitMQ Messaging Server, Junit, Mockito, Powermock, JMS, JSON, TDD, Mockito, BDD, Continuous Integration, EhCache, AngularJS, JAX-RS and SOAP based Services, Low Latency and High Throughput Programming

Design Pattern: EIA, Factory, Façade, Chain of Responsibility, Proxy, Singleton, Distributed Architecture

Roles:

- Coordinated with the team to build solution based on Enterprise Integration Architecture pattern which implemented Messaging Framework (Spring Integration), Spring Hibernate Support, IOC and PostgreSQL
- Executed in-memory data for storing intermediate result and developed middleware application to support connectivity within memory DB to other components
- Developed signification functional user story, which has high impact on functionality level using GOF design pattern; created Junit test cases, reached to 85% code coverage and recognised with the appreciation from the client

Jul'08 to Jan'13 with Vendors Gloubussoft Pvt. Ltd. as Contractor in Persistent

🖛 TECHNICAL SKILLS

- Languages: Java1.8, Scala 2.11, Python, JavaScript, Typescript, RxJava
- Data Structure: Stack, Queue, Linked List
- Algorithms: Sorting, Searching, BST, Divide and Conquer
- Java Stack: Servlet, JSP, Multithreading, Concurrent API, NIO, Java Stream, RMI, Sockets, Concurrent, Hotspot JVM, JRocket, JDK8 Functional Programing
- * Big Data: Spark, Map Reduce, Hive, Sqoop, Oozie, Apache Beam, Apache Flink
- Cloud Technology: Amazon- AWS (S3, EC2, Dynamo-DB, Lambda)
- **ORM**: Spring- JPA, Hibernate 4.0
- ✤ No-SQL: Elastic Search, Cassandra, Mongo DB
- UI & Supporting Languages and Technologies: Node.js, React-JS, JSX, Angular-JS 2, Struts (1.2.9, 2.0), JSF, VAADIN, Sprint MVC, XML, XSLT, JSON, Ajax
- Spring 4: Spring Core, AOP, DI, Batch, Security OAUTH, Boot, Rest , Spring Scheduler, Cloud, Spring Web-Socket
- Web-Service: JAX-RS, JAX-WS, Spring REST, Apache AXIS 2
- Messaging Services: Kafka, Rabbit MQ, JMS, Esper Complex Event Processing
- Connection Polling: C3P0, DBCP, Tomcat JDBC Connection Pool, IBM WebSphere Connection Pool
- RDBMS: Db2, Oracle (RDBMS, Coherence), PostgreSQL, MySQL
- Cache Servers: Redis, EhCache, OSCache
- * Testing: Junit, Mockito, Powermock, Selenium, SOAPUI, Postman, Grizzly
- DevOps: Jenkins, Bamboo
- Build Tool: Maven
- * Web & Application Servers: Tomcat (6.0), IBM WebSphere, JBoss-Web Server
- Repository: GIT, SVN
- * Technologies: Spring Scheduler, Terracotta Quartz Scheduler, RabbitMQ Messaging Services, DOM, SAX, ELK
- Design Patterns: GOF, J2ee Design Pattern, EIA

🖻 EDUCATION

- * MCA in 2008
- B.Sc. (Computer Science, Math, Physics) from GGU Central University in 2005

CERTIFICATION

OCJP 7