Mohanrk0916@gmail.com **980-322-7892**

*Technology Leader with 22 Years of Experience driving Critical & Transformational Technology Initiatives for Bank of America, Sprint.*

* **Technical Leadership & Mentorship**  
  Proven track record of leading cross-functional teams, conducting code reviews, and establishing best practices and frameworks to ensure high-quality software development and delivery.
* **Enterprise Architecture & Solution Design**  
  Multi-skilled in designing and building complex, high-performance, scalable software systems, capable of aligning IT strategies with business goals to deliver impactful solutions.
* **Legacy System Modernization**  
  Deep experience in modernizing monolithic legacy applications and databases into distributed architectures leveraging NoSQL and in-memory databases like SingleStore/MemSQL.
* **Advanced Middleware & Data Layer Implementation**  
  Architected and implemented high-performance service flows using multithreading/multitasking, integrating real-time and batch data operations with SingleStore, DB2, and distributed cache layers.
* **J2EE & Web Technologies**  
  Extensive development expertise in Java/J2EE technologies such as Spring, Hibernate, Struts, and REST/SOAP Web Services.
* **Distributed Data Architecture & ETL**  
  Experience in Data Replication Strategies, QCapture/Publish orchestration, and data pipeline optimization using tools like IBM DataStage, Autosys, and Unix/Linux scripting.
* **Agile Software Development & DevOps**  
  Hands-on experience with Agile methodologies, CI/CD pipelines, automated testing, and performance tuning across large-scale software lifecycles.
* **Data Model Specialist**:

Specialized in designing, optimizing, and managing enterprise-scale data models that underpin high-performance, mission-critical banking systems. Plays a pivotal role in ensuring data accessibility, consistency, and performance across both real-time and batch processing environments.

* **AI-Driven Development Enablement**:  
  Successfully integrated **Copilot AI** into the development toolchain, accelerating **code quality, development velocity**, and **automated suggestions**—driving faster innovation while maintaining engineering excellence.
* **Observability & Monitoring**  
  Designed and implemented functional and synthetic monitoring strategies using Splunk, AppDynamics, Dynatrace, and DNT, supporting operational resiliency and rapid root cause analysis.
* **Core Banking Data & Analytics Operations**  
  Expertise in Operations and Performance Resiliency Modeling, especially within Customer Data Platforms, with a focus on real-time monitoring, alerting, and self-healing architectures.
* **Batch Processing & Mainframe Systems**  
  Deep knowledge of Mainframe technologies, including CICS, and batch job orchestration using Autosys and UNIX scripting.
* Strategic thinker, capable of aligning technology roadmaps with evolving business objectives.
* Self-motivated and proactive, consistently driving continuous improvement and innovation.
* Energeticteam player with strong communication skills and the ability to thrive in high-pressure

**CAREER EXPERIENCE:**

**Bank of America, Charlotte, NC Aug 2024 - Present**

**Feature Lead**

**Application Security & Mutual TLS (mTLS) Integration for Tier-0 Banking Systems**

As a core architect and lead developer within Bank of America’s consumer banking division, I led the enterprise-wide design and implementation of **mutual TLS (mTLS)** across the **WebSphere Customer Center (WCC)**—a Tier-0 system responsible for servicing over 100 million customer interactions daily across mobile, online, and branch banking channels.

In response to evolving cybersecurity threats and the shift toward microservices and distributed architectures, this initiative focused on replacing legacy authentication mechanisms with **bi-directional, certificate-based transport security**. This provided **X.509-based trust validation**, ensuring both the **client and server** authenticate each other during communication, thereby dramatically improving the organization’s security posture, data integrity, and compliance with internal InfoSec policies.

WCC, acting as the **first-hop orchestration layer**, aggregates and serves sensitive customer and account data from multiple backend systems, forming the backbone of all customer interactions. It supports 200+ integration channels and 40+ APIs/services, facilitating seamless, secure access to profile information, account linkages, AML indicators, and other critical data domains.

My contributions spanned from architecture design, certificate lifecycle automation, integration with observability stacks, to rollout strategy—ensuring zero-downtime migration and full compliance with enterprise security standards.

**Technologies:** J2EE, Spring, Camel, Hibernate, DB2, Memsql, WAS, DNT, splunk, APPD, Ansible, GITHUB, Dynatrace, LTM, GTM, AIC Tool.

**Bank of America, Charlotte, NC Feb 2020 - Present**

**Feature Lead**

**Customer Reference Data Store (CRDS)**

Subject Matter Expert (SME) for Tier-0 online banking applications, with deep expertise in both **middleware services** and **batch data processing**. Spearheaded the design, development, and optimization of **real-time data access layers and Va** leveraging **Java, WebSphere, security, and distributed caching systems** (e.g., SingleStore), ensuring low-latency, high-availability support for millions of daily mobile and web banking transactions. On the batch side, architected and led enterprise-scale **ETL and data load workflows** using **Autosys, DB2, and Linux**, supporting nightly synchronizations, reporting, and fail-safe processing. Collaborated closely with infrastructure, networking (WLM/LTM), security, and product teams to align performance, scalability, and compliance across environments. Proven track record in modernizing legacy platforms, reducing mainframe dependencies, and ensuring end-to-end resiliency for both synchronous and asynchronous banking services.

* + Enhanced the online banking application by integrating it with **Customer Reference Data Store (CRDS)**—a distributed, in-memory caching layer built on **SingleStore**, reducing MIPS and decoupling from mainframe systems.
  + Enabled **real-time customer and account data retrieval** during high-volume activities like logins, replacing tightly coupled legacy mainframe calls.
  + Designed a robust **NoSQL architecture** to improve data **resiliency, stability, and availability**, especially under peak transaction loads.
  + **Designed and built a new data center environment from the ground up**, incorporating an in-memory data layer (SingleStore) and a robust IBM WebSphere (WAS) JVM cluster to support Tier-0 online banking applications. Architected the full technology stack for **high availability, low latency, and disaster recovery**, ensuring resilience for mission-critical customer-facing services.
  + Augmented write/update APIs to **record a metadata flag** indicating that customer or account data had been recently modified.
  + This flag was leveraged in subsequent read operations to **intelligently determine whether the request should go to DB2 instead of SingleStore**, ensuring data freshness and consistency across services.
  + Reduced the likelihood of serving stale or partial data, especially in cross-channel use cases (e.g., after profile updates via call center or mobile).

**Technologies:** J2EE, Spring, Camel, Hibernate, DB2, Memsql, WAS, DNT, splunk, APPD, Ansible, GITHUB, Dynatrace, LTM, GTM, AIC Tool.

**Bank of America, Charlotte, NC Feb 2023 to Feb 2025**

**Vice President: Feature Lead – Technology**

**Environment Modernization– RHEL9 Upgrade**

Proven specialist in designing and implementing robust, secure, and scalable middleware environments for Tier-0 online banking applications. Extensive experience in integrating Java EE applications on IBM WebSphere, implementing mutual TLS (mTLS) protocols for secure inter-service communication, and architecting high-availability clusters across multi-data center deployments.

Skilled in configuring and optimizing WLM, LTM, iRules, and advanced load-balancing strategies to handle millions of daily customer interactions across digital and branch channels. Successfully led end-to-end implementation of middleware infrastructure—spanning environment provisioning, SSL keystore/truststore management, JVM tuning, observability integration (Splunk, Dynatrace), and deployment automation—ensuring zero downtime and full compliance.

Drove legacy decoupling initiatives by introducing distributed caching layers using SingleStore (MemSQL), significantly enhancing response times, reducing MIPS consumption, and elevating overall system resilience.

* Led the end-to-end RHEL9 upgrade initiative for Tier-0 online banking applications, overseeing the design, build, validation, and traffic transition of a mission-critical infrastructure environment.
* Defined and architected a comprehensive migration strategy, ensuring zero-downtime cutover and alignment with enterprise security and compliance standards.
* Built and transitioned over **700+ servers** from RHEL7 to RHEL9, enabling enhanced performance, security posture, and system lifecycle support.
* Validated and optimized IBM WebSphere (WAS) configurations—including JVM tuning, MQ integrations, Splunk logging, and Dynatrace monitoring—to ensure full compatibility and operational readiness.
* Collaborated with WLM and LTM teams to design and implement advanced **iRules** and traffic-routing logic, enabling intelligent traffic transition between legacy and upgraded environments.
* Executed parallel shadow testing of old vs. new platforms to verify consistency and system integrity prior to full production switchover.

**Technologies:** J2EE, Spring, Camel, Hibernate, DB2, Memsql, WAS, DNT, splunk, APPD, Ansible, GITHUB, Dynatrace, LTM, GTM, AIC Tool.

**Bank of America, Charlotte, NC Sep 2018 to Nov 2019**

**Vice President: Technical Lead**

**MLII Conversion:**

**Objective:**

MLII Conversion:

Led the successful migration of 12+ million retirement account profiles to Websphere Customer Center (WCC), enabling unified customer data access across channels. Executed high-volume party bursting to identify existing versus new profiles, ensuring accurate linkage and deduplication. Onboarded and enhanced essential services within WCC to support MLII channels, enabling seamless customer onboarding and activating online banking capabilities through WCC-integrated services.

* **Led the end-to-end migration** of 12+ million retirement account profiles to WCC with minimal business disruption.
* **Executed party bursting logic** to accurately identify and map new vs. existing customer profiles within WCC.
* **Designed and implemented integration workflows** to support MLII services across digital platforms.
* **Enhanced WCC services** to meet new business requirements and ensure alignment with customer data standards.
* **Enabled online banking activation** for migrated retirement profiles by integrating WCC with authentication and provisioning layers.
* **Coordinated with cross-functional teams** including data governance, infrastructure, and business units to ensure successful onboarding.
* **Performed data validation, reconciliation, and quality checks** post-migration to ensure consistency and integrity.
* **Ensured high availability and compliance** of WCC during the migration through robust monitoring and fallback strategies.

**Technologies:** J2EE, Spring, Camel, Hibernate, DB2, WAS, DNT, splunk, APPD, Ansible, GITHUB, LTM, GTM, AIC Tool.

**Bank of America, Charlotte, NC Sep 2016 – Nov 2018**

**Vice President: Technical Lead**

**Development of nGEN APIs and Decommission of IBM MDM[Master Data Management]**

The successful decommissioning of IBM Master Data Management (MDM) and the development of next-generation (nGEN) APIs required a coordinated effort across architecture, engineering, governance, and operations teams. The initiative focused on transitioning from a centralized, monolithic data platform to a modern, scalable, and API-driven ecosystem. The following roles were instrumental:

Objective:

* Led the initiative to eliminate dependency on IBM InfoSphere MDM Advanced Edition, addressing critical Non-Permitted Technology (NPT) risks and WebSphere 7.x end-of-life constraints (April 2018).
* Mitigated regulatory and operational risks for Tier 0/Tier 1 UCAL applications by removing aging middleware components.
* Customized and modernized 92 active APIs by migrating them to the enterprise-standard nGEN/REST/OAG framework, enabling enhanced performance, governance, observability, and security compliance across critical banking services.
* Executed a dual business strategy focused on cost savings and risk reduction:
  + Achieved $2.6M annual recurring savings in MDM licensing and maintenance costs.
  + Avoided a $1M upgrade investment to a non-strategic version (IBM MDM v11.4), redirecting funds toward modernization.
  + Delivered projected returns with an estimated $4M transformation investment in 2018.
* Modernization of 92 active APIs by migrating them to the enterprise-standard nGEN/REST framework, enabling enhanced performance, governance, observability, and security compliance across critical banking services.
* Modernized and simplified the architecture by moving to a single technology platform aligned with enterprise standards.
* Successfully retired WebSphere 7.x, resolving major NPT compliance mandates.
* Improved system resiliency, availability, and scalability across critical business platforms.
* Enabled future migration to App-Host platforms, laying foundational groundwork for continued cloud/hybrid modernization.

**Technologies:** J2EE, Spring, Camel, Hibernate, DB2, WAS, DNT, splunk, APPD, Ansible, GITHUB, Dynatrace.

**Bank of America, Charlotte, NC Nov 2015 – Nov 2017**

**Vice President: Technical Lead**

**Transparent Retirement/Tran to Non-Tran Conversion**

This initiative involved the **conversion of over 1.2 million credit cards** from externally issued, co-branded relationships to fully **Bank of America-owned cards**. The program was driven by the acquisition of portfolios previously managed by external entities through WCC and aimed to bring those portfolios under complete BoA control.

The initiative required **strict orchestration across systems, services, and data layers**, and demanded **surgical control over service visibility, data exposure, and compliance adherence**. The petitioner’s contributions were essential in **designing, developing, and deploying the technical controls and system enhancements** that enabled a seamless and legally compliant transformation without disrupting customer experience.

* Designed and implemented service layer logic to **suppress feature exposure** for converted cards until official customer communication timelines were reached.
* Prevented early display of Bank of America branding, rewards structures, statements, and offers—ensuring **regulatory compliance** and synchronized rollout.
* Collaborated with marketing, legal, and compliance teams to align visibility logic with notification strategies.
* Led the integration of card metadata and servicing logic across multiple layers, including **digital platforms, core banking services, call center tools, and backend APIs**.
* Verified synchronization across data stores to maintain **servicing continuity, customer entitlements, and transaction histories** during and after the conversion.

**Technologies:** J2EE, Spring, Camel, Hibernate, DB2, Memsql, WAS, DNT, splunk, APPD, Ansible, GITHUB, Dynatrace.

**Roles and Responsibilities played in Bank of America from 2015 to the present are as below:**

Architecture & Solution Design

* Designed and led enterprise-scale architecture for secure, scalable, and resilient Tier-0 banking systems.
* Defined and implemented Zero Trust-based authentication frameworks using mTLS across microservices and distributed systems.
* Architected high-performance data access layers leveraging hybrid storage (DB2 + SingleStore) for real-time and batch workloads.
* Designed multi-data center infrastructure for high availability, disaster recovery, and zero-downtime deployments.
* Defined encryption, certificate lifecycle, and enterprise CA strategies to align with InfoSec and regulatory standards.

🔹 Secure Communication & Middleware Engineering

* Implemented mTLS (mutual TLS) across WebSphere and Tomcat-based services with certificate validation, keystore/truststore automation, and observability hooks.
* Engineered SSL/TLS configurations and load-balancer-level security using WLM, LTM, and custom iRules (e.g., SNI routing, client cert validation).
* Led full-stack environment modernization from RHEL7 to RHEL9, ensuring compatibility, performance, and security.

🔹 Distributed Systems & Mainframe Offloading

* Offloaded mainframe MIPS through strategic SingleStore caching and DB2 fallback mechanisms.
* Introduced intelligent routing, SLA-based fallbacks, and circuit breaker patterns to optimize performance and ensure resilience.
* Built synchronization frameworks for daily data ingestion, transformation, and validation between DB2 and SingleStore.
* Enabled cost reduction and modernization by decoupling from legacy mainframe systems.

🔹 Application & Data Platform Engineering

* Led the development of high-performance REST APIs and services for real-time data access and eligibility-based routing.
* Embedded smart flags for read/write decisioning to ensure data freshness and cross-channel consistency.
* Managed batch ETL pipelines using DataStage, Autosys, and shell scripting to support business-critical reporting and replication.

🔹 Data Model Specialist:

* Specialized in designing, optimizing, and managing enterprise-scale data models that underpin high-performance, mission-critical banking systems. Plays a pivotal role in ensuring data accessibility, consistency, and performance across both real-time and batch processing environments.

🔹 AI-Driven Development Enablement::

* Successfully integrated Copilot AI into the development toolchain, accelerating code quality, development velocity, and automated suggestions—driving faster innovation while maintaining engineering excellence.

🔹 Infrastructure Provisioning & Automation

* Oversaw server builds and middleware setup for 700+ nodes during RHEL migration.
* Automated certificate issuance, renewal, and deployment using DevOps pipelines.
* Streamlined environment provisioning for WCC and other Tier-0 platforms with JVM tuning and SSL integration.

🔹 Monitoring, Observability & Compliance

* Integrated Splunk, Dynatrace, Prometheus, and AppDynamics for end-to-end observability.
* Built real-time dashboards to monitor handshake success, certificate expiry, and application health.
* Defined operational logging, alerting, and security audit strategies to support governance and incident response.

🔹 Leadership & Cross-Functional Collaboration

* Acted as SME for online banking and CCDP platforms across middleware, data access, and batch layers.
* Coordinated with product, InfoSec, network, and infrastructure teams to align on design, risk, and compliance.
* Led developer onboarding, conducted trainings, and maintained technical documentation for knowledge sharing.
* Delivered technical presentations and risk assessments to executive architecture and security governance boards.

**Bank of America, Charlotte, NC [Tata Consultancy Services] Aug2013 - Nov 2015**

**Technical Lead**

**Preferred Rewards**

The Preferred Rewards & Banking Rewards Wealth Management Program is a strategic initiative within Bank of America's digital ecosystem designed to enhance customer loyalty, engagement, and satisfaction. The program provides personalized benefits based on a customer's total relationship with the bank, including deposit, investment, and wealth management balances.

Key project deliverables include the integration of advanced customer indicators within the WebSphere Customer Center (WCC), enabling real-time eligibility checks, tier assignments, and program-level tracking across all banking channels.

Program Impact

* Enabled automated, real-time eligibility determination for Preferred Rewards Program participants
* Supported seamless customer experience across all channels with accurate tier and benefits assignment
* Reduced operational complexity through centralized program tracking and customer indicators
* Enhanced customer engagement and loyalty through targeted rewards and recognition

This enterprise-wide solution impacts customer experiences across mobile, online, and branch platforms, providing benefits such as:

* Gathered and documented business requirements for Preferred Rewards indicators and workflows
* Coordinated with stakeholders to align functionality with program benefits and eligibility policies
* Supported user testing and validation of end-to-end solution
* Bonus rates on money market accounts
* Increased cashback on eligible credit card spending
* Free investment trades and discounted loan services
* Priority servicing and relationship recognition

**Technologies:** J2EE, Spring, Camel, Hibernate, DB2, WAS, DNT, splunk, APPD, Ansible, GITHUB.

**Bank of America, Charlotte, NC [Tata Consultancy Services] Nov 2012 - Nov 2014**

**Technical Lead**

**Consumer Credit Card Modernization**

To remediate data quality issues between legacy consumer card systems (CARDS and CCDP-WCC), establish CCDP-WCC as the authoritative System of Record (SOR) for customer profiles, and migrate critical customer entities—including authorized users and transactional customers—while modernizing the user interface for demographic updates.

Spearheaded the development of a modern web-based UI (Customer To Customer Services - CTCS) to replace the outdated mainframe screens. This provided user-friendly access to customer demographic data, supporting front-line and operational banking teams with better usability and control.

* Led the coordination of work plans with developers and support team on the completion of tasks. Involved and coordinated as a liaison between TSYS& C3PM resources to get necessary answers for this project to be successful. Since C3PM, is a critical project, it is important that the communication and coordination among various teams is seamless. Ensured that the project deliverables are monitored and tracked and no items were missing. Proactive in ensuring the required documentation always exists, and was phenomenal in creating the plan for the Credit card application schedule migration
* Enhanced core APIs to support secure, real-time access to critical customer and account data.Enabled key search and inquiry functions to surface profile, account, and card information to authorized originators only.
* Developed and implemented throttling mechanisms to manage the timing and flow of data exposure.This controlled release ensures data quality, reduces risk of inaccurate data propagation, and aligns with compliance standards.
* Strengthened data governance and security posture across digital banking. Improved operational reliability and customer trust by ensuring only validated, timely data reaches end users. Positioned the API ecosystem for scalable growth and cross-channel data consistency.

**Technologies:** J2EE, Spring, Camel, Hibernate, DB2, WAS, DNT, splunk, APPD, Ansible, GITHUB, Datastage, Autosys.

**Bank of America, Charlotte, NC [Tata Consultancy Services] Aug 2007 - Aug 2012**

**Production Support Lead**

The Objective of this project is to Design, Develop, Unit test, Integration test and co-ordinate with offshore for System testing for all initiatives under the BOA CIS WCC/SPX Middleware Applications. Providing maintenance support to WCC/SPX Middleware Applications.

WCC (Websphere Customer Center) plays a significant role in the functioning of BOA CIS (Customer Information System). WCC-is customer data integration application that groups together all of the customer information across all communication channels and all line of business. WCC gives a single enterprise view of all the customer data and almost all the customer transactions pass through WCC with the help of various API’s.

SPX stores Combined Statement and Pricing relationships for Model accounts, and houses the functionality for creating and maintaining those links, as well as sending this information downstream when accounts cycle. SPX also houses the rules for enforcing eligibility.

* Combined statement – 2 or more accounts linked together on a statement
* Relationship pricing – 1 or more accounts linked together in order to qualify for waive of a monthly maintenance fee (can qualify even with 1 account)

**Technologies:** , UNIX/Linux, JAVA, JDBC, DB2, WAS, Datastage, APPD, MF and CICS.

**Responsibilities**

* Led the **design and development** of *WebSphere Customer Center (WCC)*—the **Customer Data Hub for Bank of America**, serving as the authoritative source of truth for enterprise customer profiles.
* Directed major **integration and migration initiatives** including **Countrywide, Merrill Lynch, and BOL** customer data integrations into the centralized WCC system.
* Acted as **primary liaison with business stakeholders**, gathering requirements, analyzing impacts, and translating business needs into scalable, technical solutions.
* Oversaw **end-to-end architecture** design, development, integration, testing, and deployment across multiple environments.
* Delivered comprehensive documentation including:
  + **System Architecture Specifications (SAS)**
  + **Functional Specifications (FSD)**
  + **Low-Level Design (LLD)**
* Conducted **impact analysis and dependency mapping** to assess technical risks and integration challenges across business units and partner systems.
* Managed project scope, **estimation, costing, planning, resource allocation**, and delivery tracking.
* Participated in executive and management review meetings to **report project status**, risks, and resolution plans.
* Played a critical role in **RTB (Run-The-Bank)** operations—ensuring production deployments, post-go-live monitoring, and ongoing system health.
* **Assigned and reviewed technical tasks** from both a functional and implementation perspective; provided mentorship and oversight to development teams.
* Led **defect management**, coordinating triage efforts and ensuring timely resolution and delivery for each sprint/release.
* Maintained continuous collaboration with stakeholders through **status reporting, impact reviews**, and validation of deliverables.
* Provided **24x7 on-call production support**, ensuring SLA compliance and high availability for Tier-0 applications.
* Conducted **root cause analysis** and applied **permanent fixes** to critical system issues (Corrective Maintenance).
* Designed and deployed **preventive maintenance updates** to eliminate recurring production issues and enhance overall system resilience.
* Implemented **enhancements and new features** to improve customer experience, increase data accuracy, and align with compliance standards.
* Led **process improvement initiatives**, driving operational efficiency and codebase maintainability across both real-time and batch subsystems.

**Technologies:** J2EE, IBM MDM, DB2, WAS, splunk, APPD, Ansible, GITHUB, Datastage, CIS, CA7, Autosys.

**CEAS (Corporate Exchange Architecture System)**

**Sprint, Sacramento Dec 2003 – Jul 2007**

* Sprint is one of the leading tele-communication in USA. It is a long distance communication division. We enhanced the project to find out the network as well country of network lines.

**Technologies:** , UNIX/Linux, JAVA, JDBC, DB2, WAS, APPD, MF, DB2 and CICS.

**Responsibilities:**

* Fast learning of applications and providing quick solutions for the End User Request.
* Preparation of artifacts Involved in scoping the application requirement, creating design artifacts and functional specification.
* Preparation of Proof of concepts, system understanding document which was using as base document for new project members.
* Preparation of HLD and LLD documents.
* Working on server side development components like Services, Business Objects and Data access objects.
* Working on CRFs.
* Coded for critical path of application
* Performing Code Reviews and verifications.
* Performing impact analysis.
* Design and Code Construction with Documentation.
* Production support team member.

**EDUCATION:**

* MCA – Master of Computer Applications. Visvesvaraya Technological University, India