

# MATHEW DONY SEBASTIAN

Technical Software Architect, Principal | Interac Corp

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## PROFESSIONAL SUMMARY

Accomplished Technical Software Architect with 20+ years of progressive experience designing and delivering enterprise-grade payment systems and cloud-native solutions. Proven track record of architecting mission-critical payment rails from the ground up, leading cross-functional teams, and driving digital transformation initiatives for Fortune 500 companies. Expert in microservices architecture, cloud platforms, and building highly scalable, secure, and resilient distributed systems that align technical solutions with strategic business objectives.

### Core Competencies:

- Enterprise Architecture & Payment Systems Design
  - Cloud-Native Solution Development (Azure, AWS, Kubernetes)
  - Microservices & Event-Driven Architecture
  - API Design & Implementation (REST, ISO20022)
  - Technical Leadership & Team Mentorship
  - Continuous Integration/Continuous Deployment (CI/CD)
  - Stakeholder Management & Strategic Planning
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## TECHNICAL EXPERTISE

**Languages & Frameworks:** Java/J2EE, Spring Boot, Spring MVC, Hibernate, Grails, Kotlin, ISO20022

**Cloud & DevOps:** Azure, AWS, OpenShift, Kubernetes, Docker, Jenkins, Azure DevOps, JFrog Artifactory, Istio, Envoy

**Databases:** Oracle, MySQL, MongoDB, Cassandra, H2

**Messaging & Middleware:** Kafka, RabbitMQ, ActiveMQ, Azure EventHub

**Architecture & Design:** Microservices, SOA (SOAP/REST), Multi-tenancy Architecture, Service Mesh, API Gateway Patterns

**Monitoring & Observability:** AppDynamics, Splunk, Datadog

**Tools & Methodologies:** Jira, Confluence, Git Flow, Sonarqube, Swagger/OpenAPI, Enterprise Architect, Agile/Scrum

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## PROFESSIONAL EXPERIENCE

### Principal Technical Software Architect | Interac Corp | September 2021 – Present

#### **Key Project: Interac Direct – ISO20022-Based A2A Payment Rail**

Lead architect responsible for the design, delivery, and market launch of Interac Direct, Canada's next-generation account-to-account payment infrastructure. Spearheaded technical solutioning for the Konek Wallet initiative, collaborating with major Canadian banks and financial acquirers to establish a unified digital payment ecosystem.

#### **Key Achievements & Responsibilities:**

- Architected and successfully launched Interac Direct payment rail from inception, enabling real-time A2A payments compliant with ISO20022 standards across Canada's banking ecosystem
- Designed core microservices architecture for Konek Wallet solution, managing consent orchestration, token lifecycle management, and secure user profile services
- Drive technical strategy and roadmap alignment, translating complex business requirements into scalable, secure technical solutions
- Establish and enforce software development standards, architectural patterns, and best practices, reducing technical debt by 35% through systematic code reviews and architecture governance
- Mentor and coach development teams to cultivate T-shaped skillsets, enhancing team capability across cloud platforms, security protocols, and payment domain expertise
- Collaborate with C-level executives, product owners, and business stakeholders to define technical vision and ensure solutions deliver measurable business value
- Optimize system performance and reliability through continuous improvement cycles, achieving 99.95% uptime SLA for production payment services

**Technologies:** Java, Spring Boot, Kubernetes, Azure, ISO20022, Kafka, OAuth 2.0, OpenAPI, Microservices Architecture

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### Technical Delivery Manager | Rogers Communications | September 2019 – September 2021

#### **Key Project: Virtual Assistant & Conversational AI Platform Modernization**

Led technical delivery for Rogers' and Fido's customer-facing Virtual Assistant and Chat platforms, managing cross-functional engineering teams and driving digital transformation initiatives to modernize legacy infrastructure.

#### **Key Achievements & Responsibilities:**

- Directed end-to-end modernization of Virtual Assistant platform, migrating monolithic Play/Akka applications to cloud-native Spring Boot microservices, reducing deployment time by 60%
- Architected resilient, fault-tolerant platform leveraging Istio service mesh, Kubernetes orchestration, and multi-region active-active deployment strategies

- Implemented comprehensive CI/CD pipelines using Azure DevOps, enabling automated testing, canary deployments, and zero-downtime releases
- Designed and deployed RESTful microservices enabling self-service capabilities for 5M+ Rogers and Fido customers, improving customer satisfaction scores by 28%
- Established high availability architecture with multi-regional replication, Application Load Balancer traffic distribution, and horizontal pod autoscaling, supporting 10,000+ concurrent users
- Enforced enterprise security standards through RBAC, API gateway policies, OAuth 2.0, and container security scanning, achieving SOC 2 compliance

**Technologies:** Spring Boot, Kubernetes, Azure, Istio, Docker, JFrog Artifactory, Azure DevOps, RESTful APIs, Microservices

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### **Solution Architect | Tata Consultancy Services (Client: Interac Corp) | January 2018 – August 2019**

#### **Key Project: Interac e-Transfer Platform Modernization**

Architected next-generation e-Transfer platform upgrade, transforming legacy SOAP-based monolithic services into modern RESTful microservices architecture to support Canada's most widely-used P2P payment system.

#### **Key Achievements & Responsibilities:**

- Designed contract-first RESTful API architecture using OpenAPI 3.0 specification, establishing standardized service contracts across 20+ microservices
- Implemented sidecar pattern for inter-service communication, service discovery, and distributed tracing, improving system observability and fault isolation
- Built abstraction layer bridging modern microservices with legacy SOAP services, enabling phased migration strategy with zero business disruption
- Established CI/CD pipelines using Jenkins and Docker, automating build, test, and deployment processes across development and production environments
- Led architecture review sessions with client stakeholders, ensuring alignment with enterprise architecture standards and regulatory requirements
- Conducted hands-on development and rigorous code reviews, maintaining high code quality standards across the development team

**Technologies:** Java, Spring Boot, RESTful APIs, OpenAPI/Swagger, Docker, Jenkins, Oracle Database, SOAP, Microservices

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### **Technical Lead | Tata Consultancy Services (Client: Interac Corp) | January 2013 – December 2017**

#### **Key Project: Interac e-Transfer 3.0 Enhancement Initiative**

Led technical design and implementation of e-Transfer 3.0 feature enhancements, modernizing Canada's leading digital money transfer platform to improve customer experience and drive transaction growth.

#### **Key Achievements & Responsibilities:**

- Architected multi-layered application framework based on Service-Oriented Architecture (SOA) principles, ensuring separation of concerns and modular design
- Designed and developed supporting web applications including payment gateway, offline transfer portal, and online administration system
- Led architecture review sessions with client stakeholders, securing approval for technical designs and framework implementations
- Established design patterns and coding standards adopted across development teams, improving code maintainability and reducing defect rates by 40%
- Mentored junior developers on enterprise architecture patterns, Java best practices, and service design principles

**Technologies:** Java/J2EE, Spring Framework, SOAP/REST Web Services, Oracle Database, SOA Architecture

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### **Application Developer Lead | Tata Consultancy Services (Client: American Express) | August 2006 – December 2012**

#### **Key Project: FX International Payments Platform**

Led development of American Express's global foreign exchange and international payments platform, enabling seamless cross-border payment processing for corporate clients worldwide.

#### **Key Achievements & Responsibilities:**

- Led design and development of critical payment functionalities including payment creation, forward contracts, FX quotes, cross-currency payments, and wire transfers
- Conducted hands-on development and code reviews for mission-critical features handling multi-million dollar daily transaction volumes
- Collaborated with business analysts and product managers to translate complex business requirements into technical solutions
- Established quality assurance processes and coding standards, reducing production defects by 45%
- Mentored team members on Java development, web services, and application security best practices

**Technologies:** Java/J2EE, Spring Framework, Oracle Database, Web Services, Payment Gateway Integration

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### **Application Developer | Tata Consultancy Services (Client: American Express) | July 2005 – July 2006**

#### **Key Project: PayBill – Credit Card Payment Platform**

Developed American Express's PayBill application enabling UK customers to pay credit card bills through debit cards via multiple channels.

#### **Key Achievements & Responsibilities:**

- Developed and enhanced payment processing modules supporting web, phone, and mobile interfaces
- Conducted code analysis, performance optimization, and defect resolution

- Collaborated with QA teams to ensure comprehensive test coverage and production readiness
- Participated in build and deployment activities, ensuring smooth production releases

**Technologies:** Java/J2EE, Web Services, Payment Processing Systems

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## EDUCATION

**Bachelor of Technology (B.Tech) | 2004**  
Cochin University of Science and Technology

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## PROFESSIONAL HIGHLIGHTS

- Successfully architected and launched multiple payment systems processing billions of dollars in annual transaction volume
  - Deep expertise in Canadian payment ecosystem, including collaboration with major banks (TD, RBC, Scotiabank, BMO, CIBC)
  - Proven ability to balance technical excellence with business pragmatism, delivering solutions that drive revenue growth and operational efficiency
  - Strong track record of leading distributed teams across multiple time zones and geographies
  - Active contributor to technical communities and advocate for engineering best practices
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## KEY PROJECTS SUMMARY

Project	Organization	Impact
Interac Direct Payment Rail	Interac Corp	National A2A payment infrastructure launch
Konek Wallet Solution	Interac Corp	Pan-Canadian digital wallet ecosystem
Virtual Assistant Platform	Rogers Communications	5M+ customer self-service enablement
e-Transfer Modernization	Interac Corp	Canada's leading P2P payment platform
FX International Payments	American Express	Global cross-border payment solution

Table 1: Career-defining project portfolio