KANNAN RAJAPPAN

Oshawa, Ontario. L1K 2P9

**Solution Architect | Technical Consultant**

15+ years of experience in architecting, designing, and implementing large-scale Digital Gaming, Cloud, and Enterprise solutions. Proven expertise in digital architecture, cloud infrastructure (Azure), microservices, Agile methodologies, and third-party integrations. Strong background in driving digital transformation and solution delivery for cGaming, financial institutions, and enterprise applications.

**Core Competencies**

* **Solution Architecture:** Microservices, Event-Driven Architecture (EDA), Cloud-native, Integration, Scalable & Reusable Patterns
* **Cloud Technologies:** Azure (IaaS, PaaS, SaaS), Docker, Kubernetes
* **Digital/Gaming Platforms:** Cloud Gaming, Payment Systems, Casino/Lottery Systems
* **Agile Methodologies:** Scrum, Kanban, Test-Driven Development (TDD), Continuous Integration (CI/CD)
* **Integration & Data Services:** Kafka, RabbitMQ, Data Warehouse, Data Migration, ETL Tools, Control-M, Autosys
* **Security:** OAuth2, SSL/TLS, Encryption/Decryption, OAuth/JWT Authentication
* **DevOps:** Jenkins, Git, Bitbucket, Maven, Gradle, Azure DevOps
* **Collaboration:** Technical Team, Code Review, Solution/Architecture Design, Product Owner, Business Analyst & Stakeholder Engagement, 3rd Party Vendors

**Professional Experience**

**TechM (Scotiabank), Toronto**

**Solution Architect**  
*August 2024 – till date*

* **Delivered solution architecture and design implementation** of **international payment workflows (ACH, WIRES)** support for Global Cash Management System using **Nodejs, Java 17, Spring 3.1.4 with Azure SQL.**
* **Developed POC Solution** using **Feature Flags and Lift and Shift** approach to handle the **domestic payment workflows** (payroll, supplier, bill, and tax payments).
* Created **software documentation** with **UML diagrams** that defines goals, tasks, features and functions.
* Assisting technical team in case of technical deadlocks, high priority defects with best development, testing and quality improvement practices.
* Design and deploy scalable microservices solutions aligned with Agile principles, delivered in iterative releases.
* Provided technical presentation and discussion with other teams to define the roadmap for technical delivery.

**Technologies:** Java 17, JSON, HTML, JavaScript, Spring Boot, Spring Batch, Redis, Azure, Docker, Kafka, SQL Server, OAuth2, Junit, Jenkins, Git, Bitbucket, Swagger, Postman, React, Node.js and Docker

**Alquemy (HSBC Bank), Toronto**

**Senior Technical Consultant**  
*August 2022 – April 2024*

* Partnered with the Wholesale Credit and Lending team to architect scalable and secure solutions aligned with enterprise architecture.
* Solid knowledge in **Java 11, Multi-threading/Concurrency, Collections, Spring, Spring Boot, REST API, SOAP, and Microservices.**
* **Designed and developed POC to Modernize Microservice** based application from DataStage to issue payments for MT messages and PDF extraction application to automate customer notebook creation.
* **Developed Automation Solution** using microservices-based architectures using **Java 11, Spring Boot, Oracle 19c**, and deployed in Dev, SIT, UAT and production environments.
* Designed and implemented a real-time batch processing notification system using **SMTP servers**, ensuring efficient cross-region updates for job execution.
* Revised **Data model** to support both the LOANIQ - payment flows and designed **data migration** using **Spring Batch**.
* Worked on modernization initiatives such as migrating from legacy applications to microservices-based systems with **Azul Zulu OpenJDK**, enhancing performance and scalability.
* Led the development of a **Kafka-based messaging system**, enabling seamless processing of high-volume data in a distributed environment.
* Responsible for Requirement, Technical documentation, Analysis, Architect, Design, Develop, Testing (TDD/ BDD), Deliver.
* Achieving high code coverage using Unit Testing, Integration Testing, Spring Boot Testing, Mockito Testing.

**Technologies:** Java 11/17, Python, Spring Boot 3, REST API, Microservices, Kafka, Docker, Oracle 19c, Azure, Control-M, Jenkins, Git, Bitbucket, Swagger, Postman

**Delpath Inc (Scotiabank), Toronto**

**Technical Consultant**  
*October 2021 – August 2022*

* Led the architecture and design of **digital trading workflows for multiple regions/zones** integrated with Bloomberg’s market data, automating the trading lifecycle for derivatives and risk products.
* Solution provided using **microservices on Azure** to manage market data feeds using **Java 11, Spring Boot**, and **Redis Cache**, enhancing performance for high-frequency trade data.
* Designed and developed Market Data Service using BPIPE protocol APIs by using Java 11, SpringBoot and Redis Cache on Azure platform to post currency trades instruments such as futures, bonds, securities.
* Collaborated with the product team to design and deploy scalable microservices solutions aligned with Agile principles, delivered in iterative releases.
* Developed a seamless **real-time streaming pipeline** solution for market data from **Bloomberg**, using **Docker** to facilitate deployment across distributed systems.

**Technologies:** Java 11, JSON, HTML, JavaScript, Spring Boot, Redis, Azure, Docker, Kafka, Cassandra, OAuth2, Junit, Jenkins, Git, Bitbucket, Swagger, Postman

**Scientific Games (OLG), Mississauga**

**Senior Software Engineer**  
*November 2017 – September 2021*

* Involved in of architecture discussion, design, develop and implementation for **Cloud Gaming solutions** - **Cgaming** applications hosted in Microsoft Azure for Ontario Casinos.
* Designed and developed event-driven microservices using **Spring Boot, RabbitMQ**, and **Azure Functions** to handle high-frequency gaming events in real time.
* Led the design of **single sign-on (SSO)** authentication, integrating existing gaming systems with **Active Directory** to manage users across platforms.
* Collaborated with site gaming vendors to optimize the digital gaming architecture, ensuring alignment with OLG's strategic roadmap.
* Used various security patterns like Encryption/Decryption, Basic-Auth, 2-way SSL/TLS, OAuth2 Workflow.
* As a Subject Matter Expert (SME) developed and provided solutions for production issues on a timely manner with excellent communication skills.
* Developed solution to migrate **on ETL/Data Warehouse Systems project to upgrade the relational database SQL Server Instance** for various Regions.
* Designed and developed report generation tool using Spring framework, ORM tools like Hibernate/JPA, JBoss/Wildfly, SQL database.
* Worked at **Alberta Gaming, Liquor and Cannabis Commission (AGLC), British Columbia Lottery Corporation (BCLC)** to provide solution design, delivery, deploy, and managing the SG product build packages via Phone/Email daily with SG Service Technicians.
* Identifying the Critical application for System resource utilization (CPU, Memory, Threads etc.) & JVM heap size was monitored using AppDynamics and system tools.
* Mentor and collaboration with junior engineers, fostering their technical growth and promoting a culture of continuous learning, long vision and improvement.

**Technologies:** Java 8, Spring Boot, RabbitMQ, JMS, Azure, Kafka, Docker, Microservices, SQL Server, MongoDB, PostgreSQL

**Bally Technologies, Tamil Nadu, India**

**Senior Software Engineer II**  
*December 2010 – November 2017*

* **Led the technical** team to deliver digital gaming solutions for clients across multiple regions (US, Canada, Australia).
* **Developed real-time monitoring tools and dashboards** for **critical system performance** using **Java, Spring**, and **SQL Server**.
* Designed and implemented multiple gaming services and transaction workflows for **Route Casino Management** systems, providing end-to-end solution delivery from conceptualization to deployment.
* Being a technical lead, guided the team at onshore/offshore in explaining the requirement & provided technical guidance, integration test, refactoring code using Java, JBoss/Wildfly, Spring framework, Microservices with SQL Server base and provided solutions to deliver the Scientific Games product build packages across multiple regional such as US, Canada, Australia, and South Africa.
* Developed the admin module in SDS is used to start and stop a drop process: coins, bills, and slips. Track employee cards log on and log off employee cards from a shift and view the list of signed on cards.
* Developed a user interface for Slip Inquiry utility is used to retrieve and view the details of slips issued for jackpot, dispute, fill /bleed.
* Developed a printer format screen used to search, add, edit, and delete custom or available printer properties that are required for printing jackpot, dispute, and fill bleed slips.
* Developed a slip designer screen used to design jackpot, dispute, and the fill bleed slips. The fields selected in this option are printed on slips.

**Technologies:** Java, Spring, Hibernate, Microservices, SQL Server, PostgreSQL, AppDynamics, C#

**Education & Certifications**

**Bachelor of Technology in Information Technology**  
Anna University, Chennai, Tamil Nadu, 2010

**Diploma in Information Technology**  
AICTE, Chennai, Tamil Nadu, 2007

**Key Projects**

* **Cloud Gaming Solution for OLG:** Design and implementation of a real-time gaming platform for **OLG**, integrating payment systems and slot management via **Azure** and **Spring Boot**.
* **Bloomberg Market Data Integration for Scotiabank:** Architected a **microservices-based** solution for Scotiabank to process real-time financial data from Bloomberg, enhancing risk and derivative product analysis.
* **Global Cash Management Solution for Scotiabank:** Cash Beneficiary Management is coupled with Country Specific (CO, MX). Provided **solution to support for Global Cash Beneficiary Management (US, CA).**

**Technical Skills**

* **Programming Languages:** JSON, HTML, JavaScript, Java (11/17), Python, SQL
* **Cloud Platforms:** Azure, Docker, Kubernetes
* **Architectural Patterns:** Microservices, EDA
* **DevOps Tools:** Jenkins, Git, Bitbucket, Maven, Gradle
* **Security:** OAuth2, SSL/TLS, JWT, Encryption
* **Collaboration Tools:** JIRA, Confluence, Swagger, Postman, Microsoft Visio, Mural, Draw.io
* **Databases:** Oracle, SQL Server, PostgreSQL, Cassandra