



## Rana Waqas Kamran

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### SUMMARY:

- Over 9+ years of software development experience ,end-to-end delivery projects. **Requirements Gathering,Backlog Prioritization,Sprint Execution & Analysis, Design, Development, Support, Enhancement, Deployment and Maintenance** of business Enterprise applications.
- Worked as the primary point of contact for stakeholders and cross-functional teams for integration.
- Strong Experience in developing **Microservices** using **Java, Spring Boot, Apache Kafka** and **Spring Cloud**.
- Extensive Experience in utilizing **Camunda BPMN** to automate Complex Business Processes.
- Worked extensively in **Kafka** for building and maintaining asynchronous messaging pipelines, ensuring reliable distributed communication across microservices.
- Good Experience in **AWS ECS** using **Docker** for building and deploying applications.
- Proficient in using **IBM ODM** to design and automate Complex business Rules for Operational Efficiency.
- Strong Experience in using **Persistence** Frameworks like **Spring Data JPA, Hibernate**.
- Monitored application logs,system metrics using **Splunk** to identify performance bottlenecks and Production issues.
- Strong Experience in developing **Web Services** using **SOAP, REST**.
- Strong Experience in **SOA** and **Microservices** architecture.
- Good Experience in **CI/CD** process and tools (**GitHub, Maven, Jenkins, Docker**).
- Good Experience in writing **Unit Tests** using **Junit, Mockito**.
- Good Experience in **REST APIs** documentation using **OpenAPI, Swagger**.
- Experience in tracking defects, issues, risks using **JIRA**.
- Hands on Experience in using version control systems like **Git, GitLab**.
- Developed **GenAI-powered automation** for document processing in immigration chatbots, leveraging **OpenAI GPT models and Hugging Face Transformers** for text extraction, summarization, and decision support.
- Good Experience in **AWS (ECS Fargate,EC2, S3, RDS,ALB,API Gateway)** and **Kubernetes** (intermediate)
- Strong experience in Python development with expertise in **TensorFlow, Tesseract, and NumPy**
- Excellent communication skills and a strong team-player spirit, Co-ordination with other teams and adept at problem analysis

### TECHNICAL EXPERTISE:

<b>Languages</b>	Java,Typescript,Python, SQL
<b>JAVA &amp; J2EE</b>	Core Java Multithreading, Completable Future, Collections, Streams, lambda, Exception handling, etc., J2EE, Servlets, JSP, JDBC, XML, JPA, Junit, Lombok
<b>Frameworks</b>	Spring (Boot, Core, WebFlux,Cloud, Data, MVC, Security, Integration), Hibernate, Apache Kafka, IBM ODM, Camunda, LangChain
<b>Application/Web Server</b>	WebLogic 12c, JBoss 7.1.0, Tomcat 8



<b>Web services</b>	REST, SOAP, WSDL
<b>Database</b>	Oracle 12c/19c, PostgreSQL, MySQL, DynamoDB, Apache Cassandra
<b>UI Technologies</b>	Angular, JSF, Prime faces, JavaScript, CSS, HTML
<b>Version control Tools</b>	Git, Bitbucket, SVN
<b>Design Tools</b>	Visual Paradigm, Microsoft Visio
<b>Build Tools</b>	Maven, Gradle, Docker, Jenkins
<b>Other Tools</b>	Postman, SOAP UI, SQL developer, VS Code, JIRA, Swagger, SonarQube
<b>IDEs</b>	IntelliJ, Eclipse, NetBeans, Oracle Design Studio, My Eclipse
<b>Operating Systems</b>	Windows 10, UNIX, LINUX
<b>SDLC Methodologies</b>	Agile, Waterfall Software development methodologies
<b>Testing</b>	Unit Testing, Integration System Testing, UAT testing

## EDUCATION & CERTIFICATION:

- Bachelor of Science in Computer Science (BSCS) from University of South Asia, Pakistan
- **AWS Certified: Machine Learning – Specialty (AI Focus)**  
[Credly Badge Link](#)

## WORK EXPERIENCE:

**Iaai Chicago, IL (Remote)**  
**Full Stack Java Developer**

**Jan'2025 – Present**

Description: Online vehicle auction platform. Vehicle inventory, real-time bidding, order processing, payments and notifications. Integrated Kafka for asynchronous communication and ensured scalability, fault tolerance and clean separation of concerns across services. Applied REST APIs, Kafka, JPA and Redis for optimal performance.

### Responsibilities:

- Developed RESTful microservices for core modules including user registration, vehicle inventory, auction bidding, order processing.
- Implemented asynchronous communication between services using Apache Kafka, ensuring loose coupling and high throughput.
- Secured REST APIs by implementing **Spring Security with JWT-based authentication and authorization**, improving application security and scalability
- Resolved backend-related issues promptly, minimizing service disruptions and maintaining high availability.
- Enhanced system scalability, maintainability, and deployment flexibility while reducing inter-service dependencies
- Optimized database interactions with **JPA/Hibernate** and implemented caching strategies with **Redis** to reduce latency and improve throughput.
- **Implemented reactive microservices using Spring WebFlux** to handle high-concurrency API requests with non-blocking I/O, reducing response latency and improving scalability for event-driven applications.
- Designed and implemented **business process workflows** using **BPMN models** in Camunda.
- Integrated **Camunda process engine** with **Spring Boot microservices(Java Delegates)** for end-to-end automation.
- Built Camunda **External Task Workers** in Java to handle asynchronous workflows and integrate with REST APIs & Kafka.
- Worked with **Camunda Cockpit** for monitoring running process instances and debugging incidents.
- Designed and implemented **containerized microservices deployments** on **AWS ECS** with **Fargate**.
- Developed **Angular** application with **REST APIs / backend services**, handling authentication, state management, and data binding.
- Designed complex **Reactive Forms** with validation, dynamic fields, and form state management
- Worked with **Angular Material** to deliver modern, accessible, and user-friendly interfaces.



**Environment / Tech Stack:** Java 17, Spring Boot, Spring Security, Kafka, JPA/Hibernate, Redis, Camunda, REST APIs, Splunk, Git, Docker, AWS ECS Fargate, S3, Angular 14

**Emaratech UAE**  
**Full Stack Java Developer(Acting Tech Lead)**

**Nov'2020 – Dec 2024**

**Description:** Emara-tech Provides solutions for Dubai immigration System from visa requests to visa issuing and entry/exit validation.

**Responsibilities:**

- Acted as Team Lead, overseeing a team of 5 developers with responsibilities including code reviews, client communication, requirements gathering, and system design.
- Involved in daily stand-up, backlog grooming meetings and worked with the product owner for the story creation, assigning the points to stories and implementation of stories.
- Developed and maintained microservices-based applications for immigration-related processes, ensuring seamless communication with non-technical stakeholders.
- Developed **Microservices** using **Spring Boot, Spring Cloud, Camunda, Apache Kafka, Apache Cassandra JPA, IBM ODM, REST, Python, Tesseract OCR**.
- Implemented **Camunda BPMN** workflows to automate immigration case management processes, including visa applications, passport processing, different Levels of actions(user states), and document approvals.
- Built **External Task Workers** in Java to handle asynchronous workflows and integrate with REST APIs & Kafka.
- Collaborated with cross-functional teams to integrate backend services with other applications, external systems, and third-party APIs, resulting in a comprehensive immigration solution.
- Involved in the requirement gathering phase with internal and external stakeholders.
- Designed scalable systems capable of handling a growing volume of immigration applications and data.
- Implemented **Spring Security** for application authentication and authorization using **JWT tokens**.
- Involved in Integration Testing, User Acceptance Testing and tracking/resolving Production issues.
- Created and documented API (A-synch and Sync) for efficient communication between Microservices and other systems.
- One point contact for state entities communications.
- Involved in the development of the presentation layer of the application using **Angular**.
- Involved in writing unit test cases using **Junit & Mockito** and running the test suits.
- Collaborated with UX/UI designers to create user-friendly interfaces and workflows.
- Implemented asynchronous solutions using **Completable Future and Kafka Topics** to improve application performance, enabling parallel processing of tasks and reducing overall response time
- Utilized **Apache Cassandra with Kafka Topics** for implementing a robust audit trail system to track and log key application modification, user actions with time, for transparency and accountability.
- Developed a **Python-based** solution using OCR libraries (such as Tesseract) to extract text from passport images, enabling automatic validation of passport expiry dates by parsing and comparing extracted data to help the officer to make effective decisions.
- Utilized **IBM ODM** to implement extensive application validation rules, ensuring the accurate validation of critical data such as nationality, age, passport details, and previous file data, through configurable decision tables and rule flows.
- Designed and implemented **containerized microservices deployments** on **AWS ECS** with **Fargate**
- Configured **ECS task definitions, services, IAM roles, CloudWatch monitoring, and auto-scaling** for high availability
- Used **Amazon S3** to store and manage binary objects and large files, reducing database bloat and ensuring better scalability
- Developed **Angular** application with **REST APIs / backend services**, handling authentication, state management, and data binding.
- Designed complex **Reactive Forms** with validation, dynamic fields, and form state management
- Worked with **Angular Material** to deliver modern, accessible, and user-friendly interfaces.



**Environment:** Java 17, AWS, AWS ECS Fargate, Spring Boot 3.0, Camunda, Angular 10, Oracle 19c, IBM ODM, Docker, Sonar, Angular 10, Cassandra.

**AI/ML Artificial Intelligence/GEN AI/Image Processing(UAE ): Nov'2020 – Dec 2024**

- ❖ InsightFace, Tesseract OCR, Tesseract JS, NumPy, Python(3.10), Flask, Pillow

**Responsibilities:**

- ❖ Built and deployed a **production-grade document intelligence module** for automated identity verification, currently in use within live systems in immigration. The solution includes **passport MRZ extraction, multilingual OCR, and blank or incorrect document detection**, ensuring high accuracy in document classification.
- ❖ Integrated **InsightFace** for facial similarity comparison and used **EasyOCR with pre-trained models** to extract structured data from **passports and driving licenses**, enabling reliable identity parsing and validation in real-time workflows
- ❖ Leveraged **Python (Flask, TensorFlow, PyTorch)** for experimentation, model training, and API deployment.
- ❖ Developed **retrieval-augmented generation (RAG) systems** with vector search (Pinecone)
- ❖ Developed **GenAI-powered automation** for document processing in immigration chat bot, leveraging **LLMs (OpenAI, Hugging Face Transformers)** for text extraction, summarization, and decision support.
- ❖ Developed a multilingual text extraction and translation tool using **Tesseract.js** for OCR, integrated with **custom image cropping**, and **LibreTranslate** for real-time translation between multiple languages in an Angular-based UI.
- ❖ **Eliminated the need for commercial OCR and translation services** by leveraging open-source tools such as **Tesseract.js, InsightFace EasyOCR, and LibreTranslate locally deployed**, resulting in **significant cost savings** and ensuring full control over deployment and data privacy.
- ❖ Worked on **Generative AI solutions** integrating LLMs (OpenAI, Hugging Face, LangChain) for text summarization, conversational AI, and knowledge retrieval.
- ❖ Implemented **MLOps** practices for **Generative AI**, deploying Ollama-based LLMs with containerized pipelines, CI/CD integration, and monitoring.
- ❖ Applied **prompt engineering and fine-tuning** techniques to improve model accuracy for domain-specific use cases
- ❖ AI Model Integration via REST APIs (LangChain Knowledge).
- ❖ AWS AI Services (Comprehend, Lex)

**Etisalat (Telecom) UAE**

**Sales Portal**

**Senior Full Stack Developer**

**Feb'2019 – Nov'2020**

**Description:** Centralized platform for managing customer orders, processing payments, generating invoices, and analyzing sales data, resulting in a significant reduction in manual processes and faster response time, enabling sales teams to streamline their workflow, enhance collaboration.

**Responsibilities:**

- Developed back end of the Systems, event handling, using **Spring Boot, Spring Cloud Services, Apache Kafka, JPA, SOAP, REST**.
- Worked with the Product Owner and Quality Assurance Team for any issues, enhancements and hot fixes.
- Involved in writing unit test cases and running the test suits.



- One point contact for vendor communications and integrations.
- Resolved backend-related issues promptly, minimizing service disruptions and maintaining high availability.
- Supported the growth and profitability of Sale zone, an e-commerce platform, by implementing robust features and optimizing performance.
- Utilized **Kotlin Coroutines** (launch, Async) for non-blocking, concurrent service calls, improving performance and scalability of microservices

**Environment:** Java 8, Spring Boot 2.7, Apache Kafka, Kotlin, gRPC, Maven.

### Systems Limited

#### Mammolati (Activation System)

**Nov'2018 - Feb'2019**

#### Java Developer

**Description:** Automated Service Activation Program (ASAP) is an asynchronous communication-based platform for automated telecommunications service activation. ASAP receives service requests from multiple CRM sources and transmits the required service activation information to any destination network node.

#### Responsibilities:

- Involved in daily stand-up, backlog grooming meetings and worked with the product owner for the story creation, assigning the points to stories and implementation of stories.
- Developed SOAP & REST Web Services.
- Worked closely with the operations team for deployments and hot fixes.
- Involved in Requirements Gathering and Analysis.
- Involved in bug fixes and enhancements.
- Involved in Integration Testing, User Acceptance Testing and tracking/resolving Production issues.

**Environment:** Java 8, Spring, Hibernate, Java, PostgreSQL, Linux, WebLogic, JMS, Queues, Maven, Angular.

### Solution Dot

#### Health Care

**Jul'2017 - Nov'2018**

#### Full Stack Java Developer

**Description:** Health care system that streamlined patient registration, scheduling, and medical billing processes. Integrated various healthcare modules, improving operational efficiency and ensuring compliance with regulatory standards

#### Responsibilities:

- Implemented **REST** Web Services and integrated with **angular**.
- Developed and managed systems for patient scheduling, doctor appointments, room/ward allocations, and job scheduling
- Streamlined appointment booking and resource management, improving operational efficiency and enhancing patient experience.
- Involved in Integration Testing, User Acceptance Testing and tracking/resolving UAT issues.
- Collaborated with business stakeholders to align technology solutions with organizational goals and user needs
- Participated in system design and architecture, focusing on optimizing workflows for both patients and healthcare professionals.
- Implemented automation features to optimize scheduling processes, reducing manual effort and improving resource utilization.

**Environment:** Java 8, Spring, Hibernate, Maven, Oracle, PostgreSQL, Angular.

### Consultech

#### Health Care

**Aug'2016 - June'2017**

#### Full Stack Java Developer



Description: MediTrack – Health Management System is a full-stack healthcare management system built using Java, Spring Boot, and MySQL. The platform allows patients and doctors to manage appointments, access health records, and upload/download medical reports. It supports secure login and role-based access for different user types.

- Built RESTful APIs for patient registration, appointment booking, and report management
- Implemented role-based access control with Spring Security and JWT
- Designed MySQL-backed data models using JPA/Hibernate for structured storage and retrieval
- Created JPA/Hibernate-based repositories and entity models for efficient data access

**Environment:** Java 8, MongoDB, Spring, Hibernate, Maven, PostgreSQL, Angular.