

## PROFILE

Senior Software Developer with over 20 years of experience building robust, scalable applications across the entire software development lifecycle. Proficient in both front-end and back-end technologies, with hands-on experience in React, JavaScript, HTML, and CSS, as well as deep expertise in Java, Spring Boot, Microservices, AWS Cloud, Apache Kafka, Apache Camel, and Solace. Proven ability to lead back-end development on cross-functional projects while maintaining strong focus on system architecture and performance. Passionate about clean code, mentoring, and emerging technologies, especially AI and Large Language Models.

## AREAS OF EXPERTISE

- Java Technologies
- System Integration
- Proof of Concept Apps
- Back-End Development
- Front-End Development
- Cloud Development

## EDUCATION

### Master's degree,

**E-Commerce / Electronic Commerce**  
Dalhousie University, Halifax, Canada.

**Note:** I completed 70% of this program

### Bachelor's degree,

#### Computer Engineering

Universidade Estadual de Campinas (Unicamp), Campinas, Brazil

## PROFESSIONAL EXPERIENCE

### Software Developer

10/2016 to 05/2025

IBM | Halifax, Canada

- **Department of National Defence (Canada)** - Collaborated on the integration of isolated systems through an Event-Driven Architecture (EDA). With guidance from a Software Architect, developed an open-source proof of concept leveraging Solace PubSub+, Spring Boot, Java, Docker, MySQL, React, Vite, and Axios. The project is publicly available on GitHub at <https://github.com/jrodolfo/solace>
- **IBM WatsonX Challenge 2024** - Participated in a competitive AI challenge focused on Retrieval-Augmented Generation (RAG), a technique that enriches large language models with external data sources (e.g., PDF, TXT, DOC). Designed and tested solutions using Jupyter Notebook, Python, Milvus vector database, watsonx.ai, and watsonx.data.
- **PNC Bank** - Contributed to the development of an event-driven system using Confluent Kafka. Built Kafka Streaming applications in Java and created over 7 hours of knowledge transfer video tutorials to support onboarding and training of new Kafka developers.
- **Northern Trust** - Implemented a backend proof of concept using Java and Spring Boot to process messages from Apache Kafka topics, adhering to predefined business logic and message-handling workflows.
- **U.S. Law Enforcement Agency** - Developed a Node.js API to support mobile access to an IBM DB2 database hosted on IBM Cloud, enabling secure and efficient data retrieval for law enforcement operations.
- **Enterprise Rent-A-Car** - Built a proof-of-concept in-car application using General Motors' Driver First Framework. The prototype received highly positive feedback in client satisfaction surveys.
- **Spruce Meadows, Alberta** - Served as Android Developer for a fan engagement mobile app that provides navigation and event information at Spruce Meadows. Integrated Java-based API calls to external services. The app is available on Google Play: **Spruce Meadows Application**.

### Software Developer

03/2013 to 10/2016

CGI | Halifax, Canada

- Developed a user exit for Informatica Master Data Management for CIBC, using Java and RESTful API calls. Also enhanced a remote banking application for the Business Banking Technology team, leveraging Java, JavaServer Faces, Java Portlets, and RESTful web services.
- Worked on a project to build an enterprise-scale JIRA-based management tool for CGI Corporate and created a Java application to load Professional Services Automation data into a Master Data file.
- Delivered backend integration and data feeds for Deutsche Bank using Java and Apache Camel to support advanced pricing platforms and trading systems. Created a proof of concept using Elasticsearch and JMeter to boost search efficiency across trading history records.

## PROFESSIONAL EXPERIENCE (CONTINUED)

### Software Developer

12/2011 to 10/2012

Mariner Partners | Halifax, Canada

Contributed to the development of **Bell Aliant's** FibreOP front-end website, enhancing user experience and interface functionality. Built a mediation module for **Medavie Blue Cross** using WebSphere Integration Developer, enabling smoother integration between systems.

### Software Developer

06/2007 to 06/2011

NTT Data | Halifax, Canada

Designed and developed the **Pason** API, a RESTful web service providing access to real-time drilling data. Maintained and enhanced a BlackBerry application that allowed users to monitor active well operations remotely. Upgraded the enrolment component of a financial services platform for **TIAA**, improving clarity around product risks and benefits. Conducted code reviews to support business analysis and documentation efforts and used Struts to modernize the front end as part of system enhancements.

### Software Developer

11/2004 to 04/2006

MRO Software | São Paulo, Brazil

Utilized Maximo, an MRO/IBM framework, to create industry specific modules. Extended functionality across all layers of the framework via the use of Java. Deployed the development into WebLogic..

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*Established reputation as a Researcher at **Universidade Estadual de Campinas**. Worked as a Software Developer for various reputable organizations including the **United Nations**, the **World Health Organization**, **Motorola**, and the **University of Manchester, UK** (1992 – 2004)*

## ADDITIONAL INFORMATION

### Technical Skills

**Back End** ..... Java, Kafka, Camel, Spring Boot, Micro-Services, Solace, AWS, Linux

**Front End** ..... React, JavaScript, HTML, CSS, Android

**DevOps** ..... OpenShift, Jenkins, Maven, Gradle, Git

**Data Science:** .... AWS AI, Python, Jupyter Notebook, RAG, Oracle Database, DB2

**AI Tools:** ..... Codex by OpenAI, Junie by JetBrains

### Certifications

**AWS Certified Machine Learning Engineer**, 2024

**AWS Certified AI Practitioner**, 2024

**IBM Generative AI Foundations**, 2024

**IBM AI Associate Data Scientist**, 2024

**AWS Partner: Generative AI Essentials**, 2024

**Gen AI for Business Leaders**, 2024

**Watsonx.ai Technical Sales Intermediate**, 2024

**Banking Insights and Solutions**, 2022

**AWS Certified Developer**, 2022

**Confluent Certified Developer for Apache Kafka**, 2021

**MuleSoft Certified Developer**, 2019

### Languages

**English** ..... Fluent

**Portuguese:** ...Fluent

**Spanish** .....Advanced