

# Rafael Medeiros

## Software Engineer

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## Technical Skills

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**Proficient:** Java, Quarkus, SpringBoot, Javascript, Typescript, Node.js, Express.js, React, Next.js, TailwindCSS, Git, PostgreSQL, MongoDB, Redis, REST API, SonarQube, Amazon Web Services (CDK, S3, Dynamodb, Lambda Functions, SQS, SNS, Secret Manager, Bedrock, EC2, ECS, Cloud Watch, Cognito, Terraform), Azure Devops, Microservices, TDD, DDD, Clean Architecture, Event Driven, OAuth 2.0, Keycloak, Docker, Owasp, PostgreSQL, Mockito, Junit, JasperReports, RabbitMQ, Kafka, Jenkins, GIT, MAVEN, GRADLE, JIRA, ELK, Consul, Hibernate, JPA, Linux, ELK Stack (Elasticsearch, Logstash and Kibana), New Relic, Tanzu, Sensedia, SOLID, JMeter, Selenium, Mongoose, Prisma, TypeORM.

**Familiar:** Kubernetes, Apache Kafka, Nest.js, Prisma, TypeORM, GraphQL, Apollo GraphQL, Jest, Python, FlaskAPI, VueJs, Angular, AzureDevops, SOAP, trpc.

## Work Experience

**9 years of experience**

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### [Claro Pay](#) [ Digital bank ]

Senior Software Engineer

Sep 2022 – Present

Remote, Distributed

Collaborated on the architectural design and development of applications managing data-intensive workloads, optimizing performance through close teamwork. Extensively utilized Java 11 and 17 within frameworks like Quarkus, SQS, SNS. Delivered advanced features to digital bank ClaroPay.

- Deployment Strategy: Planned and developed effective deployment strategies.
- Implemented a microservices architecture using **Mediator**, **Event Driven** and **Orchestrator** architecture patterns, to separate responsibilities between services and ensure availability.
- Implemented the use of queues with **SQS** to certify delivery messages and integrations with third-party systems. For microservices we use Asynchronous development with Java, Quarkus and AWS cloud.
- Implemented pipelines using **terraform**.
- Implemented the use of **Secret Manager** on **AWS** to store credentials.
- Implemented the use of **SNS** to notifications, **S3** to recover files, **CloudWatch** to verify LOGs of **Ec2** and **ECS** and maintainable applications pods on ECS.
- Implemented the use of **Dynamodb** nosql database to fast storage data
- Implemented consul, **Gradle**, **Asynchronous** development with **Quarkus**.
- I designed and implemented the customized authentication used in Recharge services, where I used Amazon Cognito. Where we had the challenge of making phone number-only authentication secure and performant, to accomplish this, I participated in meetings with Amazon teams and used documentation to implement best practices. Distributed Databases: Leveraged Dynamodb and SQS for distributed database solutions in projects.

### [NttData](#) [technology multinational]

Tech Lead Engineer

Jan 2022 – Sep 2022

Remote, Distributed

I led a team of 5 developers to develop a product that offers commissions to Santander bank partners, where we delivered a tool that is powered by a Data Lake and input from Santander bank managers. To deliver the project, it was necessary to understand the bank's commission calculation and the customer's needs, in direct contact with the bank's managers, Product Owners and passing on the business rules to the team, as well as the technical solution, where we used Java 11, 17 and 19, Spring boot and Azure devops.

Previously in this project, I was allocated to the project with Ambev. In this project, we delivered e-commerce to supply large supermarkets with a main focus on beverage distribution. I worked on creating RestApi endpoints with Java and SpringBoot, where we read large files with millions of products and processed them on our platform. With the delivery of the import feature via files, the growth in market value was up to 27%, which we can see at this link <https://www.bees.com/pt-br/results>

- Technology Stack: Extensively utilized Node and Java within a microservices architecture.
- Deployment Strategy: Planned and developed deployment strategies, achieving an average SLA of 200 – 250 ms.
- Design and Development: Employed Domain-Driven Design (**DDD**) and Test-Driven Development (**TDD**) with Command Query Responsibility Segregation (**CQRS**), focusing on an event-driven architecture.
- Event Streaming: **Kafka** for high-throughput event processing, and BigQuery for event storage infrastructure.
- Project Management: Authored user stories and tasks based on solution designs, distributed tasks among the team, and provided support to ensure timely task completion and testing.
- Documentation: Documented all development processes, including comprehensive guides and best coding practices for the team.
- CI/CD Pipeline: Developed a comprehensive CI/CD pipeline using Azure Pipelines, streamlining development, testing, and deployment processes across production, staging, and development environments.
- Collaborated in an async first and distributed team, using Agile to ensure coordination between team members.

## **Qintess** [technology multinational]

Senior software Engineer

Fev 2021 – Jan 2022

Remote, Distributed

I served at the Brazilian Federal Police, where I contributed to the development and enhancement of two critical web systems. One was a system for scheduling visits to federal police headquarters, where my responsibilities included implementing advanced security measures. I integrated AKAMAI, reCAPTCHA v2, Keycloak and OWASP security recommendations into a system developed in Angular, ensuring backend token validation through a Java service. These features reduced bot attack incidents by over 60%.

In another project, I worked on a system for managing federal police headquarters and job vacancies. In this role, I implemented a dynamic calendar feature that allowed vacancies to be populated in real time. This feature enabled police delegates to adjust, release, and filter vacancies based on specific user data, greatly improving the system's responsiveness and user management capabilities

- Led the implementation of the **ELK Stack** (Elasticsearch, Logstash, and Kibana) for comprehensive application log monitoring and analysis, enabling real-time visibility into system operations, error tracking, and performance metrics.
- Developed and integrated advanced security features, including **AKAMAI** for enhanced web application firewall and content delivery security, reCAPTCHA v2 for bot mitigation, and **Keycloak** for centralized authentication management. Adhered rigorously to **OWASP** guidelines to safeguard applications against common vulnerabilities and strengthen system resilience.
- Engineered a sophisticated frontend client utilizing **React**, following industry best practices to optimize modularity, maintainability, and user experience. Applied cutting-edge design patterns and coding standards to ensure a seamless, responsive interface.
- Architected a robust backend composed of microservices using **Java** and **Spring Boot**, emphasizing performance, scalability, and reliability. Employed best practices in service-oriented architecture, including efficient resource management, RESTful API design, and asynchronous processing to support high-throughput and low-latency operations.
- Orchestrated containerized deployments with **Docker**, **Kubernetes**, and VMware **Tanzu**, establishing a highly scalable, resilient infrastructure. Implemented automated scaling, rolling updates, and optimized resource utilization to support dynamic workloads and ensure continuous availability.
- Designed and implemented robust CI/CD pipelines using **Jenkins** to automate the build, test, and deployment processes. Leveraged Jenkins plugins and scripting to streamline integration workflows, enhance code quality checks, and ensure seamless deployment across multiple environments, improving overall efficiency and reducing release cycles.

## **Indra** [technology multinational]

Senior software Engineer

Ago 2020 – Fev 2021

Remote, Distributed

Assigned to the Caixa Econômica Federal project, where I played a key role in developing the PIX functionality—a groundbreaking instant payment system in Brazil. I implemented a dedicated microservice that integrated directly with BACEN, the Brazilian Central Bank, to securely register diverse key types, including randomized identifiers, phone numbers, social security numbers, and email addresses. These keys functioned as unique, rapid identifiers for

facilitating instant bank transfers across any financial institution within Brazil.

Following the PIX launch, it rapidly became the nation's most widely used payment method, fundamentally transforming financial transactions by enabling seamless, real-time transfers. This microservice significantly contributed to the adoption of PIX by ensuring robust, scalable key management and integration, positioning it as an essential part of Brazil's digital payments landscape.

- Implemented comprehensive documentation using **Confluence**, **Wikis**, and **Swagger** to standardize and streamline technical references, API endpoints, and system workflows.
- Developed robust unit tests, integration tests and performance and stress tests with **Mockito**, **JUnit** and **JMeter**, ensuring high code coverage, reliability, and early detection of issues.
- Built a responsive **frontend client** with **Angular** and **TypeScript**, adhering to best practices for maintainability, scalability, and performance.
- Designed and implemented **microservices** with **Java** and **Spring Boot**, focusing on high performance, scalability, and integration with external systems.
- Automated build, test, and deployment processes with **Jenkins** CI/CD pipelines, enabling faster, reliable delivery and continuous integration

### **Ciclic** [*Insurance company*]

Abr 2019 – Ago 2020

*Senior Backend Engineer*

*Remote, Distributed*

Worked on the travel product, addressing bugs, refactoring code, and adding new features using **Java**, **Spring Boot**, **Node.js**, and **Express**. Developed and enhanced multiple insurance products, including **travel insurance**, **home insurance**, **mobile phone insurance**, and **bicycle insurance**. Notably, the **COVID-19 travel insurance feature** generated over 20% of the company's revenue during the pandemic.

- Applied **SOLID principles** to design and develop scalable, maintainable, and modular code, ensuring system flexibility and ease of future enhancements.
- Engineered a robust **caching mechanism** using **Redis**, optimizing application performance by reducing database load and enhancing data retrieval speed, particularly for frequently accessed resources.
- Developed and integrated comprehensive **authorization flows** using **OAuth 2.0**, including **Authorization Code Flow** and **Client Credentials Flow**, to ensure secure and efficient user authentication and API access control.
- Utilized **PostgreSQL** with best practices for database design and management, implementing **Hibernate**, **JPA**, and **Flyway** for seamless ORM-based interaction, efficient query optimization, and smooth database migrations, ensuring consistency and data integrity.
- Leveraged **SonarQube** for continuous code quality analysis, implementing static code analysis and enforcing high coding standards. Achieved over **80% unit test coverage** to ensure the code passed the quality gate, driving improvements in code maintainability and reducing the likelihood of defects.

### **Armazém Paraíba** [*E-commerce*]

Ago 2017 – Abr 2019

*Full Stack Developer*

*João Pessoa, Brazil, Hybrid*

Developed a **facial recognition totem** that displayed product recommendations based on physical traits and marketing data. Worked on improving various company platforms, including the **App**, **E-commerce**, **Order Tracking System**, and **Landing Pages**, by implementing new features, refactoring legacy code, and resolving bugs.

- **Node.js, Java, TypeScript, JavaScript**: Developed features and enhanced product platforms.
- **AWS, JBoss, WildFly**: Managed application hosting and server-side logic.
- **Oracle DB, SQL Server**: Worked on database integration and performance optimization.
- **REST APIs, SOAP, JAX-WS**: Integrated internal and external services to improve system communication.
- **Primefaces, JSF, JPA**: Utilized frameworks to build scalable and user-friendly interfaces and persistent data models.
- **Postman, JUnit**: Conducted thorough testing and API validation to ensure robustness and reliability.
- **Git, Sonar**: Employed version control and code quality tools to maintain high standards.

**Energys Project**

Worked on a **battery production system** for Energys, an American company with factories in Brazil. Developed solutions for generating reports, controlling machinery, managing production, and scheduling.

**Asus Foxconn Project**

Contributed to the **ERP integration project** for Asus and Foxconn, customizing the Protheus ERP module to meet specific business requirements.

**Federal Government Aid Program for Farmers**

Developed digital solutions for the **DAP (Digital Agricultural Program)**, assisting farmers who lost crops. Designed and implemented forms using **React, Node.js, and MongoDB** to streamline the process.

- **Python, FlaskAPI:** Developed backend services for data processing and reporting in Energys project.
- **Vue.js:** Built responsive front-end interfaces for Asus Foxconn project.
- **React, Node.js, MongoDB:** Designed dynamic, data-driven forms for farmers under the federal government aid program.

## Education

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**Instituto Federal da Paraíba***Bachelor's degree in System of internet*

Aug 2018

*João Pessoa, Brazil*

## Certifications

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**Agile: SFPC****AWS: SAA C03 - AWS solutions architect associate**