

# Eliezio Oliveira

## Lead Senior Software Engineer

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### PROFILE

Versatile and impact-driven engineer with a strong focus on backend systems design, performance optimization, and large-scale service reliability. Experienced in cloud migrations, data integrity, and API governance across distributed environments. Skilled at bridging infrastructure, development, and security teams to deliver scalable, maintainable, and high-quality software.

### PROFESSIONAL EXPERIENCE

#### Technical Consultant 🗓 Apr 2025 - Sep 2025

[RioCard Tecnologia](#) <sup>[1]</sup>, Rio de Janeiro, Brazil (Remote)

Contributed to the company's cloud transformation initiative, focusing on the migration of cryptographic infrastructure from IBM z/OS ICSF to cloud-based HSM solutions.

- Led the development of a core service to centralize and secure key-managed cryptographic operations across applications.
- Designed the service to route requests to downstream cloud HSM providers (initially AWS CloudHSM, later Oracle OCI Vault), with built-in fallback and retry mechanisms.
- Accelerated migration and reduced integration complexity by decoupling client applications from specific HSM implementations.
- Collaborated with Information Security Group to ensure secure key management and compliance during the transition from on-premises to cloud-based environments.



Java 17, Quarkus, SmallRye Fault Tolerance, Hexagonal Architecture, REST API, API First, OpenApi Generator, Hashicorp Vault, Docker, Kubernetes, AWS CloudHSM, Oracle OCI, Oracle PL/SQL, ArchUnit, Pact, Wiremock, Prometheus.

#### Senior Backend Software Engineer 🗓 Apr 2022 - Mar 2025

[Beeline Inc. \(formerly Utmost\)](#) <sup>[2]</sup>, Dublin, Ireland


Contributed to the transformation of the main application to support multi-tenancy and improve scalability, reducing overall operational costs.

- Identified and resolved major performance bottlenecks caused by N+1 query patterns in both GraphQL resolvers and database queries.
- Introduced data loaders across the GraphQL layer and supported their adoption by coaching

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developers and providing implementation guidance.

- Worked with backend engineers to introduce jOOQ for complex and performance-critical queries, improving query efficiency and maintainability.
- Added integration tests to the CI pipeline to detect and prevent N+1 query issues, ensuring ongoing performance stability.

 Kotlin, Spring Boot, GraphQL, PostgreSQL, JPA/Hibernate, jOOQ, AWS, Docker, Kubernetes, Testcontainers, ArchUnit, Gradle, Gitlab

## Senior Backend Engineer Aug 2021 - Mar 2022

Teckro Ltd <sup>[3]</sup>, Limerick, Ireland

Improved server-client integration reliability and eliminated contract mismatches through automation and formalized API governance.

- Introduced a CI-validated OpenAPI specification to formalize server-client contracts, eliminating recurrent integration issues.
- Partnered with front-end developers to automate the generation process using JavaScript scripts, ensuring synchronized schemas and faster delivery cycles.

 Kotlin, Spring Boot, OpenAPI 3, REST API, API First, MySQL, Docker, Testcontainers

## Contract Senior DevOps Engineer Aug 2020 - Jul 2021

Aetion Inc. (via BRQ) <sup>[4]</sup>, New York, USA (Remote)

Automated the management of temporary database credentials, improving security and efficiency for data analysts' access to production systems. Designed and implemented an infrastructure-as-code solution to provision and revoke temporary MySQL credentials automatically. Developed a self-service Flask application for analysts to manage access requests.

 Python 3, Pulumi, Terraform, MySQL, SAML, AWS (IAM, Lambda, RDS, APIGW, CodeBuild, ECR, S3, CloudWatch), Okta, Docker, Testcontainers, Flask, JavaScript, jQuery, Axios, Bootstrap

## Senior Engineer Jan 2019 - Jul 2020

Ericsson Software Technology AB <sup>[5]</sup>, Athlone, Ireland

Strengthened the stability of Ericsson's ONAP CCSDK blueprint models by designing and implementing automated integration tests within the UAT framework, ensuring reliability across frequent upstream releases. This increased release confidence and reduced debugging cycles by integrating UATs into the CI/CD pipeline. You can view my contributions [here](#).

 Kotlin, Python 3, Spring Boot, Mockito, Docker Compose, WireMock, Pitest

Contract Software Developer 📅 Feb 2018


Komodo Platform <sup>[6]</sup>, Sliema, Malta

Developed a smart command-line client for Komodo's BarterDEX platform that automatically learned and adapted to API changes, simplifying integration and reducing maintenance overhead.

Lead Software Engineer 📅 2008 - 2014, 2016 – 2018

RioCard Tecnologia <sup>[1]</sup>, Rio de Janeiro, Brazil

- Resolved major security, performance, and reliability issues in RioCard's contactless card operations by leading the design and development of a unified, server-centric architecture with lightweight terminals and 3rd-party ATM integration.
- Increased system reliability to near-100% under peak loads and expanded the company's service reach through hundreds of 3rd-party top-up venues.




Java, Netty, Websockets, Java Cryptography Extension, TLS, PKIX, Spring Boot, MyBatis, JavaScript, jQuery, SOLID, Java Smartcard I/O (JSR 268), ISO-7816, MIFARE Classic/Plus, HSM, Spock Framework, TDD, C, Google C++ Test Framework, Jenkins, Micrometer, Prometheus, Grafana.

EDUCATION

Bachelor of Computer Science

Universidade Federal do Rio de Janeiro, Institute of Computing (ranked 5th in QS Latin America 2025)



Final Year Project: Implementing TLS Extensions on OpenSSL (RFC 3546)

Certifications

- Blockchain Specialization (University at Buffalo)
- Certified Developer for Apache Kafka (Confluent)
- Parallel, Concurrent, and Distributed Programming in Java (Rice University)
- Cryptography I (Stanford)
- Advanced Python Development Techniques (Microsoft)

LANGUAGES

- English: Full Professional Proficiency (C1 Level)
- Portuguese: native

Who's Who

[1] RioCard TI is a technology company responsible for the RioCard electronic fare collection system, one of Brazil's largest transit ticketing platforms.

[2] Beeline is a global provider of workforce management and vendor management system (VMS) solutions for contingent labor.

[3] Teckro Ltd develops technology solutions to streamline clinical trials in the life sciences industry.

[4] Aetion Inc develops software and data analytics solutions for the healthcare industry.

[5] Ericsson Software Technology, Ericsson's R&D hub specializing in cloud-native, microservices-based platforms and telecom software innovation.

[6] Komodo is a secure and customizable blockchain ecosystem.