CURRICULUM VITAE

PERSONAL DETAILS

Name: Eliezio Oliveira

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PROFESSIONAL SUMMARY

As a professional in the ever-evolving landscape of technology, I believe that true value lies in the ability to dive deeply into complex problems, mastering the right set of tools or frameworks to solve them, and emerge with solutions that are not only functional but also efficient, scalable, and forward-thinking.

WORK EXPERIENCE

04.2022 - now

"Beeline Inc. (formerly Utmost)" [1], Senior Software Engineer

Dublin, Ireland

- I tackled the GraphQL N+1 problem by introducing graphql-dataloader to critical subresolvers, advocating its benefits to backend developers, and providing mentoring for adoption. This led to significantly faster query response times and reduced database load.
- I developed tools for integration tests that use datasource instrumentation to detect excessive queries caused by Spring Data/Hibernate mappings. This eliminated the issue in critical queries, improving efficiency.
- Authored the OSS project dbQueryWatch (github.com/dbguerywatch/dbguerywatch).
- Kotlin, Spring Boot, GraphQL, PostgreSQL, Hibernate, AWS, Docker, Kubernetes, Testcontainers, ArchUnit, Gradle, Gitlab

08.2021 - 03.2022

"Teckro Ltd" [2], Senior Backend Engineer

Limerick, Ireland

- I introduced integration tests using a client generated from the OpenAPI spec and ensured only the spec was published to the local Maven repository. This eliminated contract breaks between REST services typical in the contract-last approach.
- Kotlin, Spring Boot, REST API, OpenAPI 3, OpenAPI Generator, Gradle, MySQL, AWS, Docker, *Kotest, JUnit 5, Testcontainers*

2020 - 2021

"Aetion Inc. (contractor via BRO)" [3], Senior DevOps Engineer

New York, USA

- I automated MySQL access management by implementing a GitOps-like engine that created temporary accounts based on a simple config file and removed them after a set time. A Flask-based front-end allowed users to request access via a bastion host, reducing the process to seconds while ensuring full automation and auditability.
 - OSS Backend: github.com/eliezio/sari
 - OSS Frontend: github.com/eliezio/sari-web
- Python 3, Pulumi, Terraform, MySQL, SAML, AWS (IAM, Lambda, RDS, APIGW, CodeBuild, ECR, S3, CloudWatch, Glue), Okta, Docker, Packer, Testcontainers, Flask, JavaScript, jQuery, Axios, Bootstrap

Athlone, Ireland

- I implemented automated acceptance tests using pact-like interactions in YAML, eliminating disruptive ONAP CCSDK updates. This saved hours of debugging per release, allowing Ericsson's team to focus on new features.
 - Solution's README
 - My contributions to ONAP CCSDK
- I developed a NETCONF emulator using sysrepo and Netopeer2 for automated integration tests, initially for my project and later generalized for other Ericsson teams. This improved reliability and significantly reduced errors in NETCONF-related features.
- Kotlin, Python 3, Spring Boot, Mockito, Docker Compose, WireMock, Pitest

"Komodo" [5], Freelancer

Zurich, Switzerland

- Developed a smart client that auto-learned commands, sub-commands, and options from the server's /help endpoint, ensuring a robust, adaptable tool compatible with future Market Maker versions.
 - OSS repository: github.com/eliezio/marketmaker-cli
- C, REST API, Google C++ Test Framework, Sonarqube, CMake, Travis CI

2008 - 2014, 2016 - 2018

"RioCard Tecnologia" [6], Lead Software Developer

Rio de Janeiro, Brazil

- Designed a secure, high-performance architecture for top-up terminals, cutting processing time from 15s to under 1s. Shifted 99.9% of processing to a central server, ensuring system security and seamless third-party integration, enabling RioCard expansion across hundreds of ATMs.
- Redesigned the online card processing front-end, applying UX principles to improve usability. Developed a Single-Page Application with better hierarchy and contrast, making recharge operations more intuitive and user-friendly.
- Developed a C-based SDK that improved RioCard validator integration by delegating sensitive operations to a Secure Authentication Module (SAM), enhancing security and increasing validator supplier competition.
- Java 8, JCE, Spring Boot, Spock Framework, TDD, Spring RESTDocs, MyBatis, JavaScript, jQuery, SOLID, Cryptography, C, Google C++ Test Framework, SAM, MIFARE Classic/Plus, HSM (IBM z/OS ICSF), Jenkins, Prometheus, Grafana

2000 - 2008, 2014 - 2016

"MUXI Tech (now Dock)" [7], Lead Software Developer

Rio de Janeiro, Brazil

- Developed an IP stack for payment terminals with minimal RAM, enabling internet-based services beyond payments. Ported PPP, implemented IP/UDP layers, and built a credit bureau guery app within 14kB memory. Showcased in Costa Rica, later deployed on 2M+ terminals in Brazil, helping transform the company into a leading POS solutions provider.
- Optimized mTLS for resource-limited terminals by replacing a slow multi-precision arithmetic library in a commercial TLS solution with OpenSSL's counterpart. Reduced handshake time from over 2 minutes to 2.5 seconds, delivering a lightweight, highperformance security layer.
- Developed a lightweight, single-threaded reactive middleware to resolve a critical integration issue with a major Acquirer. Deployed in production for over eight years with only two reported issues, it became the company's most profitable product.
- C, TCP/IP, TLS, OpenSSL, Linux Socket API, Cryptography, Assembly, ISO-8583, SNMP

2006 Universidade Federal do Rio de Janeiro (Brazil's Top 3) Computer Science Department

Rio de Janeiro, Brazil

Bachelor of Computer Science.
Final Year Project: "Implementing TLS Extensions on OpenSSL (RFC 3546)", grade: 100

CERTIFICATES

- Confluent Certified Developer for Apache Kafka (certificate)
- Parallel, Concurrent, and Distributed Programming in Java, Rice University (certificate)
- Cryptography I, Coursera (statement of accomplishment)

LANGUAGE KNOWLEDGE

- English spoken and written fluent
- Portuguese native

Who's Who

- [1] Utmost develops extended workforce management solutions to streamline the sourcing, management, and payment processes for non-employee workers like freelancers and contractors.
- [2] Teckro Ltd develops technology solutions to streamline clinical trials in the life sciences industry.
- [3] Aetion Inc develops software and data analytics solutions for the healthcare industry, focusing on real-world evidence to support decision-making in drug development and health outcomes.
- [4] Ericsson Software Technology, a subsidiary of Ericsson, focuses on developing software solutions for telecommunications, specializing in network management, cloud systems, and digital services for telecom operators and enterprises.
- [5] Komodo builds a blockchain for secure, scalable apps and crypto trades.
- [6] RioCard Tecnologia da Informação S.A. develops and manages the RioCard, an electronic ticketing system used across public transportation in the State of Rio de Janeiro, Brazil.
- [7] MUXI Tecnologia develops payment solutions focused on capturing and authorizing electronic transactions, specializing in software for point-of-sale systems, mobile devices, and web platforms to facilitate secure and efficient payment processing across Latin America.

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