Alejo Ceballos

Senior Java Software Engineer

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March 31, 1975
Born in San Miguel de Tucumán, Argentina
Lives in Porto, Portugal

About

I have been passionate about software development for almost 27 years, working professionally in this industry since 1998. I've been using a large set of technologies to deliver solutions that best suit the client's needs.

I have solid and practical knowledge of system analysis and development, processes, agile methodologies, and databases. I am accustomed to good programming practices, having taught Design Patterns and Object Relational Mapping in a graduation program course.

I have attended Portuguese, English, and Spanish meetings in Brazil, Portugal, India, the United States, and the United Kingdom. I also have been responsible for conducting technical job interviews in Portuguese and English.

Although I have worked with several technologies and programming languages, my last experience and current expertise lie in the Java programming language and related back-end infrastructure technologies like containers, queue managers, and databases, occasionally doing Javascript-related maintenance on the front end.

Education

CESAR School
(Issued by Faculdade Marista)
2010 – 2013
Recife, Pernambuco, Brazil

Agile Project Management
Business Degree (Lato Sensu)

Universidade Salvador
(UNIFACS)
2008 – 2009
Salvador, Bahia, Brazil

Software Engineering
Business Degree (Lato Sensu)

Universidade Federal da Paraíba – Campus II
(UFPB)
1994 – 2000
Campina Grande, Paraíba, Brazil

Computer Science
Bachelor Degree

Publication

MindDomain: An Interoperability Tool to Generate Domain Models Through Mind Maps

July 7, 2016 – Computational Science and Its Applications – ICCSA 2016
16th International Conference, Beijing, China, July 4-7, 2016, Proceedings, Part IV
http://link.springer.com/10.1007/978-3-319-42089-9_33

Languages

English	Full professional proficiency
Portuguese	Native or bilingual proficiency
Spanish	Professional working proficiency

Relevant Technical Experience

Java
Spring / Spring Boot
JUnit / Cucumber / Mockito
JPA / Hibernate / JDBC
Maven

Javascript
jQuery

Web API
Rest / SOAP / GraphQL

Database
SQL / PL-SQL
Oracle / PostgreSQL / MySQL

Messaging
Rabbit MQ / IBM MQ

Virtualization
Docker

CI / CD
Jenkins

Version Control
Git
GitHub / GitLab

Agile
Scrum / Kanban
TDD / Pair Programming

Relevant Professional Experience

Senior Java Software Engineer
Aubay Portugal
Jul 2022 – Present
Porto
Portugal

Technologies: *Java (7, 8 and 11), Spring Framework, Spring Boot, Apache Camel, Java Persistence API (JPA), Hibernate, iBatis/MyBatis, JUnit (4 and 5), Mockito, PIT Mutations, Cucumber, WireMock, Postman, Apache Maven, RESTful Web Services, GraphQL, SOAP, IBM MQ, Apache Kafka, JavaServer Pages (JSP), JavaServer Pages Standard Tag Library (JSTL), HTML, Javascript, jQuery, React, Knockout.js, Jest, Jasmine, Karma, Node.js, NPM, Oracle, Coachbase, Docker, Git/GitLab, Jenkins, IntelliJ IDEA.*

Description: Outsourced to Accenture. I worked as a full-stack Java consultant for an international telecommunications and internet services company in the United Kingdom, working in a multicultural, English-speaking team and taking part in analyzing and maintaining several components implemented with different frameworks in a microservices architecture integrated using HTTP communication, message queues, Kafka streams, and diverse database technologies, working on the front end using several new and old Javascript-based and Java libraries/frameworks. I was also responsible for developing unit and integration tests for both layers, back end and front end. I used Docker containers and build tools like Maven and NPM in a local development environment. I managed version control with Git and performed code reviews of merge requests in the GitLab platform. An automation server ran pipelines to achieve Continuous Integration and deployment. My development IDE of choice was JetBrain's IntelliJ Ultimate. Jira was the primary task manager, and the team's meetings were held in English, internally, and with the client.

Senior Software Engineer
Liferay
Jan 2021 – Jun 2022
Recife, Pernambuco
Brazil

Technologies: *Java 8, Spring Framework, Liferay Framework, JavaServer Pages (JSP), JavaServer Pages Standard Tag Library (JSTL), OSGi, Javascript, Portlets, Java Object Oriented Querying (jOOQ), Gradle, Apache Tomcat, MySQL, PostgreSQL, Elasticsearch, Redis, RESTful Web Services, GraphQL, Docker, Google Cloud Platform (GCP – Pub/Sub, BigQuery, Dataflow), Apache Airflow.*

Description: I was a Java back-end developer, delivering new application modules and performing bug fixes for the company's internal projects. I started at the "Application Builder" team, developing components of a "no code" application module from the Liferay Portal using Java 8 and JSP/JSTL (along some Javascript) within an OSGi/Portlet environment and saving data to a MySQL database, and moved to the Analytics Cloud team, creating GraphQL endpoints and Rest APIs with Java 8 and the Spring Framework in a distributed environment using Docker, the Google Cloud Platform (GCP) and its technologies, like Dataflow, BigQuery and Pub/Sub (later migrated to Apache AirFlow), along Redis, Elasticsearch and the PostgreSQL database, this last one using the JOOQ library.

Software Engineer Specialist
CESAR
Apr 2020 – Dec 2020
Recife, Pernambuco
Brazil

Technologies: *PHP 7, Symfony Framework, Ruby on Rails, Ember.js, RESTful Web Services, JASON:API, MySQL, PhpStorm IDE, IntelliJ IDEA.*

Description: As a Software Engineer Specialist, I helped design system integrations using asynchronous messaging and REST APIs through JASON:API standards in projects for a substantial United States client. I also took the role of project technical leader to acquire technical and business knowledge so our team could take full responsibility for its development. I was responsible for planning and executing the ceremonies for each development cycle and attending meetings with the client to acquire and understand future requirements. The project's leading technologies were Ruby in the back end and Ember.js in the front end.

Lead Consultant
ThoughtWorks
Feb 2019 – Apr 2020
Recife, Pernambuco
Brazil

Technologies: *Javascript, React, Redux, Posed, Styled Components, HTML, Cascading Style Sheets (CSS), Electron, Node.js, GraphQL, C#, Git/GitHub, CircleCI, IntelliJ IDEA.*

Description: I worked as a full-stack software engineer, mainly using Javascript-related technologies (React, Redux, and Electron) and consuming data from a GraphQL API. I have worked in a truly agile cross-functional team, working closely with clients to seek feedback and quickly respond to changes. I traveled to Los Angeles, United States, to attend in-person knowledge transfer meetings, continually attending and facilitating remote meetings in English. Test-driven development and pair programming were standard practices, including during remote work with the client. Single branch commits backed up by feature toggles and a continuous integration tool speeded up the fast response from our clients, allowing even quicker feedback.

Professor
CESAR School
2012
Recife, Pernambuco
Brazil

I was a professor for "Design Patterns" (20 hrs) and "Object Relational Mapping" (20 hrs) classes in the graduation program course S2I ("Intelligent Solutions and Services on The Web").

In the Design Patterns course I used “Plain Old Java” to demonstrate some of the GoF Object Oriented Design Patterns along with SOLID principles.

In the Object Relational Mapping course I used JPA/Hibernate to explain how OOP classes are mapped to database tables and vice-versa, how object instances are managed by a persistence context, relating it to the Proxy Design Pattern and the Unit of Work pattern from the “Patterns Enterprise Application Architecture” book.

Senior Software Engineer
CESAR
Apr 2010 – Feb 2019
Recife, Pernambuco
Brazil

Technologies: *Java (5 and 6), Spring Framework, Java 2 Enterprise Edition (J2EE), Java Enterprise Edition (JEE), Enterprise JavaBeans (EJB), Java Remote Method Invocation (RMI), Java Persistence API (JPA), Hibernate, AspectJ, JavaSound, Gillead, Glassfish, Apache Tomcat, JavaServer Faces (JSF), Java Business Process Management (jBPM), Primefaces, Axis-2, JAX-RS, Quartz, JUnit, JMeter, Soap UI, Java VisualVM, YourKit Profiler, BlazeDS, Flex Builder, Javascript, HTML, Cascading Style Sheets (CSS), Syntactically Awesome Style Sheets (Sass), Angular, Ember.js, jQuery, Vis.js, QUnit, Karma, Node.js, Grunt, SOA, RESTful Web Services, JASON:API, SOAP, OAuth, JWT, C, FFmpeg, Python, Robot Framework, PHP, Symfony Framework, Doctrine, PHPUnit, Oracle, MySQL, MS SQL Server, Elasticsearch, Redis, RabbitMQ, Apache Maven, NPM, Concurrent Versioning System (CVS), Subversion (SVN), Mercurial, Perforce, Git, Vagrant, Docker, CentOS Linux, Ubuntu Linux, Red Hat Linux, Scrum, Eclipse IDE, IntelliJ IDEA, PhpStorm IDE.*

Description: I have participated in multiple projects and used various programming languages and technologies. Using Java, I started as a back-end developer using pure Java RMI, Java Servlets, Hibernate, and AspectJ for transaction management. I mentored a team from Angola in developing a JEE application with JSF, EJBs, and JPA in a Glassfish Application Server, saving data in an MS SQL Server database. I also worked as a performance improvement consultant, tracking memory leaks, performance bottlenecks, refactoring the business layer of a J2EE application to prevent unnecessary I/O and tuning Oracle SQL queries. I was a full-stack developer prototyping a Rest API with JSF on the front end. Finally, I worked as a full-stack developer for a high-performance multi-threaded billing system in an SOA architecture. I created SOAP and Rest APIs using the Spring Framework, jBPM, and Hibernate for data persistence. I developed unit tests in JUnit, trying to apply TDD as much as possible. I also built test plans and performed load and stress tests using JMeter and Soap UI. We used Maven as the dependency manager and build tool. CVS, SVN, and Git were used as version control tools. During a short time, due to client requirements, we had to develop the E2E tests using the Robot Framework in Python.

Due to company needs, I shifted to PHP technology to help develop a couple of internal web applications for an important client in the United States. I worked as a full-stack developer and later as a technical leader using pure PHP and the Symfony Framework, sometimes using Angular and other Javascript libraries on the front end, mainly Ember.js. The back end connects to a MySQL database using Doctrine, but we also used Elasticsearch to store data for performance improvement and Redis as the primary cache mechanism. We used RabbitMQ to allow asynchronous processing in a plain PHP application. The communication between the front and back end was enabled through a Rest API using JASON:API standards. The projects used OAuth and JWT for authentication control. All unit tests in the back end used PHPUnit, while the front end used QUnit and Karma. Perforce and Git were used as version control tools.

During my time at the company, the extensive use of the Scrum framework made me feel the necessity to learn agile methodologies. So I enrolled in a Lato Sensu course in Agile Project Management, completing it in mid-2013.

I attended meetings with the client in English and Spanish, in Brazil, remotely, or in-loco in the United States and India, and constantly conducted technical job interviews.

System Analyst
Capgemini
May 2009 – Mar 2010
Salvador, Bahia
Brazil

Technologies: *Java 2, Java 2 Enterprise Edition (J2EE), Enterprise JavaBeans (EJB 2.x), Java Remote Method Invocation (RMI), Hibernate (2.x), Apache Struts (1.2), Servlets, JavaServer Pages (JSP), JavaServer Pages Standard Tag Library (JSTL), JUnit, IBM WebSphere, Javascript, Ajax, HTML, Cascading Style Sheets (CSS), Oracle, Concurrent Versioning System (CVS), UML, Eclipse IDE.*

Description: I maintained a financial assets and investments system, sing J2EE technology, such as EJBs, Servlets, and RMI. It ran in an IBM WebSphere Server, and the front end used the Apache Struts framework with JSP, JSTL, HTML and Javascript. The business layer was developed using Stateless Session Beans, and the data was handled using Hibernate. The database was Oracle 10g, and RMI made communication between other systems possible. The team used CVS for version control.

I attended English meetings and wrote documentation using UML diagrams, such as class and sequence diagrams.

System Analyst
SEFAZ – PMS
Outsourced by FAPES
Oct 2004 – Apr 2009
Salvador, Bahia
Brazil

Technolgies: *Visual Basic 6, VB.NET, C#, ASP.NET, .NET AJAX Toolkit, Cascading Style Sheets (CSS), HTML, Web Services (WCF), Terralib, SQL, PL/SQL, Oracle, XML, MS Access, MS Excel, Unified Process (UP), UML, Use Cases, Sequence Diagrams.*

I developed and maintained several desktop and web internal systems of the Salvador City Treasury Department (SEFAZ-PMS). Coded business rules in the application and the database as stored procedures or PL/SQL stand-alone scripts. Using the Unified Process (UP), I conducted requirement gathering among several internal division representatives, writing requirements documentation for developers in the form of Use Cases and user guides. Researched and suggested technical solutions for integration issues (e.g. Web Services with Digital Certification for the Electronic Invoice of Services) and actively participated in the system architecture modeling (desktop and web) using the Unified Modeling Language (UML) and Entity-Relationship Models.

System Analyst
Funcate
Nov 2003 – Oct 2004
São José dos Campos
São Paulo
Brazil

Technologies: *Visual Basic 6, SQL, MS SQL Server, Terralib, Entity-Relationship diagrams.*

I led a team that implemented a desktop application capable of drawing lot boundaries and street lines over satellite images for area and distance calculations and saving the geospatial data model in a relational database. I traveled to Pindamonhangaba, where the team was based, and to the Salvador City, Bahia, at the client's branch. I was also responsible for gathering the requirements and creating the system documentation and user guide, and I trained the client's user group on the tool.

Software Engineer
Portais Brasil Tecnologia – PBT
Oct 2001 – Oct 2003
Recife
Pernambuco
Brazil

Technologies: *Java, Servlets, JavaServer Pages (JSP), Apache Struts (1.1), Apache Tiles, Enterprise JavaBeans (EJB), Java Database Connectivity (JDBC), Javascript, HTML, Apache Tomcat, Object Pascal, Borland Delphi, SQL, PL/SQL, Oracle, PostgreSQL, MS SQL Server, MS Acces.*

I have worked as a developer, systems analyst, and technical lead. I have worked with different technologies and programming languages, such as Object Pascal, Java, and Javascript, as well as with different databases. I have developed desktop applications using Borland Delphi and web applications using Java Servlets, Apache Struts, and Tiles, accessing databases using pure JDBC. I have worked with several databases, such as MS SQL Server, MS Access, and Oracle, developing several PL/SQL scripts, tuning SQL queries, and performing backup recovery from Oracle datafiles.

Software Developer (Internship)
CPTEC / INPE
Apr 2000 – Oct 2001
Cachoeira Paulista
São Paulo
Brazil

Technologies: *Oracle, Oracle Forms, Oracle Designer, SQL, PL/SQL, Visual Basic 6, HTML, MS Access.*

I was a CNPq (National Council for Scientific and Technological Development) scholarship holder. I participated in the climate database development team of the Center for Weather Forecasting and Climate Studies (CPTEC), where the team developed the internal database systems for climate data collection using Oracle database, PL/SQL and Oracle Forms on the Unix operating system. I also participated in an internal project for a desktop application for data visualization of remote Data Collection Platforms using Visual Basic 6 and MS Access.

Software Developer (Internship)
Infosol Sistemas
Mar 1998 – Mar 2000
Campina Grande, Paraíba
Brazil

Technologies: *Object Pascal, Borland Delphi, Interbase.*

I was an intern in the developer role for desktop applications. I implemented a bus seat reservations module, dynamically drawing the vehicle and seats, saving data in a relational database in a multi-client, real-time concurrent environment, and directly accessing the Dot matrix printer Windows driver.

Projects

Senior Java Software Engineer @ Aubay (Jul 2022 – Present)

Small Changes (Features & Maintenance) (Main technology: **Java/Javascript**)

Mar 2023 – Present

Technologies: *Java (7, 8 and 11), Spring Framework, Spring Boot, Apache Camel, JPA, Hibernate, iBatis/MyBatis, JUnit (4 and 5), Mockito, PIT Mutations, Cucumber, Wiremock, Postman, Maven, REST, GraphQL, SOAP, IBM MQ, Kafka, JavaServer Pages (JSP), JavaServer Pages Standard Tag Library (JSTL), HTML, Javascript, jQuery, React, Knockout.js, Jest, Jasmine, Karma, NodeJS, NPM, Oracle, Coachbase, Docker, Git/GitLab, Jenkins, Jira, Confluence, IntelliJ IDEA.*

Description: I worked remotely from Porto (Portugal) as a full-stack developer outsourced to Accenture in a team with members from Portugal, Brazil, and India. I occasionally went to the office in Braga or Lisbon (Portugal) and once to the client's planning meetings in Edinburgh (Scotland).

We were responsible for maintaining different services that would allow "quick wins" for our client, a telecommunications company in the United Kingdom. I worked in a cross-service team, performing software analysis and maintaining existing code in the back end and front end to adapt it to constant market changes. The scope of services ranges from customer service management, sales management, portfolio management of services and products of customer accounts, order management, customer messaging integrated with external platforms and much more.

I worked with different services in a microservices environment using Java, from 7 to 11, Spring Framework (most of them with Spring Boot), JUnit 4 and 5, along with Hamcrest, Mockito, and PIT for mutation testing. Integration tests use Cucumber and Wiremock, and manual API tests were possible using the Postman application. Service communication may use different approaches, such as Rest APIs, SOAP, IBM MQ, and Kafka streams, sometimes managed by the Apache Camel integration framework. Service components use distinct database access technologies such as MyBatis/iBatis, Spring Data with JPA (Hibernate), or pure JDBC. Maven is the build & package management tool for the back-end.

The user interface is made from a mix of front-end technologies grouped by iFrames. The newest, in React, accesses the services through a GraphQL Apache server layer; the others vary, from using Knouckout.js, Aurelia Framework, or simply JSP/JSTL with jQuery or vanilla Javascript. The oldest components still use the Tiles Framework. NPM is the primary build tool for front-end technologies, sometimes integrated into a Maven plugin. Unit tests run using Jest, Jasmine, and/or Karma.

Oracle Database is the primary persistence technology. The microservices architecture uses a "single database" approach, with a separate schema per service, even though a single service may access more than one schema. Other database technologies are also used, including NoSQL databases, such as Couchbase. EhCache and Redis are the main caching engines.

I used Docker containers to run Oracle and Coachbase databases, IBM MQ, and Kafka for local development. I performed code reviews based on changes highlighted in GitLab merge requests and sometimes directly in IntelliJ's IDE. I used Jenkins to run pipelines for continuous integration; some pipelines are responsible for building the different service components and running automated tests – back-end/front-end unit tests and integration tests - including running static code analysis with SonarQube and code coverage with JaCoCo. Other pipelines are responsible for deploying the services in different integrated test environments to the QA team to run manual and automated E2E tests.

The team used Jira to manage and follow its development process. We started using Scrum and later Kanban to manage our tasks on the Agile board. We used Confluence to store all vital documentation. Meetings were held in English, both internally and with the client.

Sales, Offers, Portfolio Life-cycle and Technical Visit Management (Main technology: **Java**)

Jul 2022 – Feb 2023

Technologies: *Java (8 and 11), Spring Boot, JUnit 5, Mockito, PIT Mutations, Cucumber, Wiremock, Postman, Maven, REST, IBM MQ, Kafka, Git/GitLab, Jenkins, Jira, Confluence, IntelliJ IDEA.*

Description: I worked remotely from Porto (Portugal) as a full-stack developer outsourced to Accenture in a team with members from Portugal and Brazil. I was responsible for maintaining existing features and implementing new ones in a system responsible for managing sales, the customer portfolio offers, and the life cycle of equipment provided by our client, a telecommunications company in the United Kingdom, to its customers.

The team and I were responsible for maintaining a couple of services in a microservices architecture using Java 8 and 11 with Spring Boot and its main libraries (web, cache, actuator, etc.). Communication between services was enabled using Rest APIs, IBM MQ, and Kafka Streams. We used third-party libraries like Lombok, MapStruct, and Jackson to reduce boilerplate code within the Java infrastructure. Developers were responsible for unit and integration tests using JUnit 5 with Mockito and Hamcrest, Cucumber, Wiremock, and Awaitility. We used the PIT library for mutation testing, allowing better code coverage control, and performed manual API tests using the Postman application. The database access was hidden under a client's framework layer. We used Maven as the build & package management tool. The front end uses React and communicates with the service's REST endpoints using GraphQL, but this was out of my scope.

I performed code reviews based on changes highlighted in GitLab merge requests. I used Jenkins to run pipelines for continuous integration, build the different service components, and run automated tests — back-end/front-end unit tests and integration tests — including running static code analysis with SonarQube.

The team used Jira to manage and follow its development process using the Scrum framework. Internal meetings were held in Portuguese, and meetings with the client were held in English.

Senior Software Engineer @ Liferay (Jan 2021 – Jun 2022)

Analytics Cloud (Main technology: **Java**)

May 2021 – Jun 2022

Technologies: *Java 8, Spring Framework, JOOQ, Gradle, MySQL, PostgreSQL, Elasticsearch, Redis, Rest API, GraphQL, Docker, GCP (Pub/Sub, BigQuery, Dataflow), Apache Airflow, Git, IntelliJ IDEA.*

Description: The Analytics Cloud project is a cloud solution that gathers information from systems created using the Liferay Portal Solution (a.k.a. "Digital Experience" or simply "DXP") and performs analysis on its data. My primary role was as a Java back-end developer using the Spring Framework and Gradle in a Docker containerized environment, creating Rest APIs and GraphQL endpoints, and consuming distributed data streamed by the Google Cloud Pub/Sub. Data is stored using PostgreSQL and MySQL relational databases, along with Elasticsearch and Redis NoSQL technology. We used Docker to run services like the API, the consumer, and the subscriber in a containerized environment. My work team comprised people from Brazil and the United States, and we communicated in English through remote calls and chat.

Lately, we have started migrating data from Elasticsearch to BigQuery and releasing some integration responsibilities from Pub/Sub to Apache Airflow due to performance issues.

Multiple Providers Chat Integration (Main technology: **Java**)

Mar 2021 – Apr 2021

Technologies: *Java 8, Liferay Framework, JavaServer Pages (JSP), Javascript, Tomcat, MySQL, Gradle, Git, IntelliJ IDEA.*

Description: "Click to Chat" is a pluggable module of the Liferay Portal "Digital Experience" that enables displaying a real-time chat window on the Liferay platform allowing live support for the users. It integrates a set of live existing support chat providers like Hubspot, Chatwood, Jivochat, and others.

The solution use Java 8, JSP, Javascript, and related technologies from the Liferay product ecosystem, built using Gradle, running on a Tomcat server, and consuming data from a MySQL database.

App Builder (Main technology: **Java**)

Jan 2021 – Mar 2021

Technologies: *Java 8, Liferay Framework, JavaServer Pages (JSP), JavaServer Pages Standard Tag Library (JSTL), OSGi, Portlets, Gradle, Tomcat, MySQL, Git, IntelliJ IDEA.*

Description: AppBuilder was a system module from Liferay Portal that allowed deploying web applications without writing a single line of code by dragging visual components to dynamic forms. The application dynamism was achieved by operating with other Liferay's modules, like Workflow and Data Engine. The project has been discontinued.

AppBuilder used Liferay's Open Source Software architecture in the back-end, mainly in Java, and React in the front-end along with Java's portlet architecture. Gradle was used as the building tool for the development environment, and the whole solution runs in a Tomcat Web Server.

Software Engineer Specialist @ CESAR

Production Line Budget System (Main technology: **Ruby**)

Apr 2019 – Dec 2020

Technologies: *Ruby on Rails, Ember.js, Rest API, JSON API, MySQL, Git, IntelliJ IDEA.*

Description: Due to a leadership gap on a new project, I temporarily accepted the technical leadership role to help the company maintain and expand its contract with an important client in the United States.

I was the technical leader of a project responsible for micromanaging expenditure on production line items. The main goal was to acquire technical and business knowledge so our team could take full responsibility for its development. In an agile environment using Scrum, I was responsible for planning and executing the ceremonies for each development cycle and attending meetings with the client to acquire and understand future requirements. The project's leading technologies are Ember.js on the front end and Ruby on Rails on the back end, which uses a MySQL database to persist data. The communication between front-end and back-end layers uses Rest and JSON API standards.

Internal Consultant (Main technology: PHP)

Apr 2019

Technologies: *PHP 7, Symfony Framework, Ember.js, MySQL, Git, PhpStorm IDE.*

Description: I was rehired by my previous employer as a technical specialist within a new career development initiative. The primary role of the position would be as an internal consultant supporting several projects for a major client in the United States, participating in architectural decisions, mentoring other developers, and technically guiding their development using Symfony on the back end, a PHP framework, and Ember.js on the front end. The communication between these layers uses Rest and JSON API standards and asynchronous messaging for integration with other internal systems.

Lead Consultant @ ThoughtWorks

In-store self-service system (Main technology: **Javascript**)

Mar 2019 – Apr 2020

Technologies: *Javascript, React, Redux, Posed, Styled Components, HTML, CSS, Electron, NodeJS, GraphQL, C#, Git/GitHub, CircleCI, IntelliJ IDEA.*

Description: I was part of a self-managed, hierarchically horizontal, and cross-functional team using agile practices. I helped implement an in-store self-service system using Javascript Technologies in a Desktop Application in a Windows 10 Operating System and communicate with peripherals like Credit Card devices, QR Code scanners, and printers. We used the React library for the front end and related libraries like Redux for application state persistence, Posed for animations, and Styled Components for CSS styling. The desktop-like environment was possible thanks to the Electron technology, a multiplatform Javascript desktop framework on top of NodeJS that links the front end with the operating system. We consumed and saved data using an anti-corruption layer through a GraphQL API. Along with my colleagues, I also maintained and evolved a previous HTTP server implemented in C# to communicate with a Scanner device driver. Continuous deployment was achieved by test-driven development and pair programming with single branch commits using Git and GitHub, backed up by feature toggles and the CircleCI continuous integration tool.

I used the pair programming technique with colleagues as a developer and also in a quality assurance role. For some time, I was appointed as the client's focal point to help elucidate issues and document requirements as Jira cards. I also facilitated English meetings remotely and in-loco in Los Angeles.

Senior Software Engineer @ CESAR

Project Management System (Main technology: **PHP/Javascript**)

Jul 2016 – Feb 2019

Technologies: *PHP, Symfony, Doctrine, PHPUnit, Javascript, HTML, CSS, SCSS, Ember.js, jQuery, Vis.js, Qunit, Karma, Rest API, JSON API, MySQL, Elasticsearch, Redis, OAuth, JWT, Git, Scrum, Vagrant, Docker, PhpStorm IDE.*

Description: I was appointed as the technical leader, after some time as a senior developer, of a Project Management system with issue tracking, graphical representation of schedule milestones, file attachments, and a dashboard summarizing the project's status (among many other features). System integration was available by exposing the Rest API under HTTPS, OAuth, and JWT. Elasticsearch was used to enhance the performance when retrieving a specific data set.

The team was responsible for maintaining/enhancing existing features and developing new ones using PHP for the back-end (with Symfony, Doctrine, PHPUnit, and other related technologies) and Javascript for the front-end (Ember.js, jQuery, Vis.js, QUnit, and other related technologies) and CSS (SCSS). The local development worked on a Linux distro using Vagrant for virtualization, later some projects were transferred into Docker containers. Data was stored in a MySQL relational database and Redis was used as the primary cache mechanism.

Agile techniques and ceremonies were used along with CI technologies (Jenkins). I attended meetings in English, locally, remotely, and traveling to the United States.

High Performance Service Provider for Billing Processes (Main technology: **Java**)

Sep 2011 – Jun 2016

Technologies: *Java (5 and 6), Spring Framework, Hibernate, Apache Tomcat, jBPM, Wicket Framework, Axis-2, JAX-RS, Quartz, JUnit, JMeter, Soap UI, SOA, Rest API, JSON API, SOAP, Python, Robot Framework, Oracle, MySQL, Concurrent Versioning System (CVS), Subversion (SVN), Vagrant, CentOS Linux, Ubuntu Linux, Red Hat Linux, Scrum, Eclipse IDE, IntelliJ IDEA.*

Description: I helped develop a web application working as a high-performance service provider for billing processes. Java was the primary technology in the project. Used Apache Tomcat 6.x as the Web Server and Oracle 11g database for data storage. The administrative UI used the Wicket Framework. The enterprise architecture was backed up by the Spring Framework (dependency Injection, transactional support among other infrastructure assistance), Hibernate (Object-Relational Mapping), Quartz (scheduling), jBPM (workflow execution), Axis 2 (SOAP Web Services), JAX-RS (RESTFul Web Services) and others. The high performance was achieved through multi-threading, database tuning (queries and indexes), and a good Unit of Work management (Hibernate's Persistence Context). JUnit was used for unit testing and also integration testing. Used JMeter and Soap UI tools to aid manual end-to-end testing and, lately, the Robot Framework (Python/Jython) for automated end-to-end testing. We used Windows and Ubuntu as the development environment. The test environment used CentOS (Virtual Machine through Virtual Box) and Red Hat Linux. Initially, Subversion (SVN) was used for version control and later changed to Git.

The project used agile practices for process development. Attended meetings in English and Spanish, remotely (only audio) and traveling to São Paulo, Brazil, and New Delhi, India.

HTML5 Web Based Spreadsheet Management Application (Main technology: **PHP/Javascript**)

Jan 2014 – Apr 2015

Technologies: *Javascript, HTML, CSS, Angular, jQuery, Node.js, Grunt, MySQL, RabbitMQ, Perforce, Git, Vagrant, Ubuntu Linux, Red Hat Linux, Scrum, PhpStorm IDE.*

Description: I was the technical leader of a project to maintain and enhance a web-based system that reproduces specific excel spreadsheets features for internal management. I went to the United States several times and held meetings with the client, gathering functional and non-functional requirements. I helped assemble a multi-functional team with developers roles (for bug

fixing, enhancements, and new features), quality assurance roles (for test engineering tasks), and UX / Designers roles (for usability improvement). Used HTML 5, JavaScript components, and frameworks (e.g. AngularJS) in the client-side layer. Used PHP technology (along with libraries for Excel integration) and MySQL database on the server-side. The use of RabbitMQ enabled asynchronous processing of long-lasting processes. I wrote a set of provisioning scripts to configure the Development Environment in a Vagrant VM with an Ubuntu Trusty/Tahr box. Used PhpStorm as the main IDE. Dependency management and task automation in the front-end rely on Node.js and Grunt. We developed E2E tests using Selenium and Started using Perforce as the version control technology, but later migrated to Git. Agile practices were constantly used (agile planning, agile estimation, agile retrospective, short delivery cycles, short daily meetings, "scrum-like" board, pair programming, and so on).

RestFul Service Provider for Android Application (Main technology: **Java**)

Aug 2011 – Sep 2011

Technologies: *Java, Java Persistence API (JPA), Hibernate, Apache Tomcat, JavaServer Faces (JSF), Primefaces, JAX-RS, Rest API, MySQL, Maven, Eclipse IDE.*

Description: I worked on developing a functional web application prototype working as a service provider for android tablet applications through RESTFul Web Services. Attended audio meetings with the client for requirements gathering. Used Apache Tomcat 6.x as the web server and MySQL 5.x database for data storage. Integration layer used Jersey and JSON for RESTFul Web Services. Presentation layer with an administrative module used JavaServer Faces (JSF) 2.x with Primefaces. Persistence layer used java Persistence API (JPA) 2.x with Hibernate.

Performance Tuning of J2EE Application (Main technology: **Java**)

Jun 2011 – Jul 2011

Technologies: *Java, Java 2 Enterprise Edition (J2EE), Enterprise JavaBeans (EJB), Java VisualVM, YourKit Profiler, Oracle, Mercurial, Eclipse IDE.*

Description: I worked on the performance tuning of a J2EE application. I focused on the business and persistence layers using tools like Java VisualVM and YourKit to track down memory leaks and performance bottlenecks. I refactored Java code for better memory management and less I/O usage and tuned Oracle SQL queries by analyzing its execution plan. Mercurial was the version control management tool. I traveled to Rio de Janeiro to work at the client's office and wrote a strategic report and improvement plan for the client's system architecture and configuration process.

JEE Application Development Mentoring with Scrum (Main technology: **Java**)

Jan 2011 – May 2011

Technologies: *Java, Java Enterprise Edition (JEE), Enterprise JavaBeans (EJB), Java Persistence API (JPA), Hibernate, Glassfish, JavaServer Faces (JSF), MS SQL Server, Subversion (SVN), Eclipse IDE.*

Description: I conducted a team mentoring process to help develop a Web Application for the Angola Government with Angola's development team. Used Scrum as development's agile framework. Glassfish was the application server, JavaServer Faces (JSF) 2.x for the presentation layer, Enterprise JavaBeans (EJB) 3.x for the business layer, and the Java Persistence API (JPA) 2.x for the persistence layer. MS SQL Server was the database. Subversion (SVN) was the version control system.

Real Time Audio / Video Conversion using RMI and FFMpeg (Main technology: **Java**)

Apr 2010 – Dec 2010

Technologies: *Java, Java Remote Method Invocatgion (RMI), Hibernate, AspectJ, JavaSound, Gillead, Apache Tomcat, BlazeDS, Flex Builder, C, FFmpeg, MySQL, Subversion (SVN), Ubuntu Linux, Red Hat Linux, Eclipse IDE.*

Description: I was the senior developer of a team responsible for creating a distributed solution to assist telephony hardware in providing real-time conversion of audio and video media in 3GP and MP3 formats for smartphones, managing several remote applications through pure Java Remote Method Invocation (RMI). Administration module developed using Flex Builder (client) accessing an Apache Tomcat Server through BlazeDS engine. Used Hibernate for the persistence layer and AspectJ for transaction management. The framework Gillead worked as middle-ware, preventing hibernate "uninitialized proxy exceptions" when returning data to the browser. The MySQL database was used in the server module and all remote applications. JavaSound libraries were used to perform the audio conversion, and FFmpeg was recompiled (using C) for AMR codec processing. Used Windows as the development environment, Ubuntu Linux for the test environment, and Red Hat Linux for the production environment. Subversion (SVN) was used for version control.

System Analyst @ Capgemini (May 2009 – Mar 2010)

J2EE Financial Transaction Enterprise Application (Main technology: **Java**)

May 2009 – Mar 2010

Technologies: *Java 2, Java 2 Enterprise Edition (J2EE), Enterprise JavaBeans (EJB 2.x), Java Remote Method Invocation (RMI), Hibernate (2.x), Apache Struts (1.2), Servlets, JavaServer Pages (JSP), JavaServer Pages Standard Tag Library (JSTL), JUnit, IBM WebSphere, Javascript, Ajax, HTML, CSS, Oracle, Concurrent Versioning System (CVS), UML, Eclipse IDE.*

Description: I was part of a team responsible for maintaining a system that manages financial assets and investments, also allowing operational knowledge and support to financial analysts. The system was developed using the Java 2 Enterprise Edition Platform technology (J2EE), especially Enterprise JavaBeans (EJB 2.x), Servlets, and Remote Method Invocation (RMI). It ran in an IBM WebSphere Application Server, and the front end used plain JSP, JSTL, and Javascript. The communication between the front and the back end was possible due to form submission or asynchronous Javascript (Ajax). Adopting the Model-View-

Controller architecture style (MVC) was possible using the Apache Struts MVC Framework (1.2). The business layer was developed using Stateless Session Beans, and the data access layer was responsible for saving and retrieving data using the Hibernate Object-Relational Framework, version 2.x. All data was saved in the Oracle 10g database, and RMI made communication between other systems possible. The team used CVS for version control.

I attended English meetings and wrote documentation using UML diagrams, such as class and sequence diagrams.

System Analyst @ SEFAZ – PMS (Oct 2004 – Apr 2009)

Attendance Tax System (SAT) (Main technology: **Visual Basic 6**)

Oct 2004 – Apr 2009

Technologies: *Visual Basic 6, SQL, PL/SQL, Oracle, RUP, UML, Use Cases.*

Description: The SAT system is the central system used by the Salvador City Treasury Department employees. It is used to input and output information regarding various taxes charged by the government, such as property tax, service tax, etc. Its graphical interface and some of its business rules were developed using Visual Basic 6, and the data is stored in an Oracle database. More complex calculations are performed in stored procedures using PL/SQL. Examples of this processing are the calculation of property tax based on property information, such as area, location, quality of material used in the project, etc. It is the primary system that allows this annual tax collection.

My role varied greatly between a systems analyst and a software developer. As a systems analyst, I collected requirements and created models and other documentation, initially using essential analysis in a waterfall model and writing risk documents and requirements matrices. Over time, we started adopting the Rational Unified Process (RUP), and I wrote the requirements documents in the form of Use Cases in addition to Class and Sequence diagrams. In both cases, extensive use of entity-relationship diagrams was always widely used. As a developer, I was responsible for bug fixes and evolutionary maintenance using Visual Basic 6 and later VB.NET, as well as a lot of Oracle SQL and PL/SQL.

Data Visualization for Power Company's Collected Taxes (Main technology: **Visual Basic 6**)

Oct 2004 – Apr 2009

Technologies: *Visual Basic 6, XML, SQL, Access, Excel.*

Description: I implemented a small desktop system using Visual Basic 6 allowing data visualization and analysis from files sent by COELBA (Electric Power Company of the State of Bahia) to SESP (Department of Public Services) regarding the collection of COSIP tax (Public Lighting Service Funding Contribution). The system reads data from text files with over 100 Mb, saving it in a local relational database and generating reports in Excel (XLS) format. All system configuration was enabled by editing XML files. I Performed requirements gathering, documentation, and risk analysis.

Electronic Declaration of Real Estate Transfer (DTUI-e) (Main technology: **UML**)

Oct 2004 – Apr 2009

Technologies: *UML, Use Cases.*

Description: I worked mainly as a System Analyst for a web solution responsible for automating real estate transfer declaration used by real estate agencies. I performed requirements gathering and documentation, risk analysis and designed the UML diagrams (Use Cases and Activities).

Electronic Invoice Service (NFS-e) (Main technology: **.NET**)

Oct 2004 – Apr 2009

Technologies: *ASP.NET, .NET AJAX Toolkit, CSS, HTML, Web Services (WCF), C#, VB.NET.*

Description: I assisted in developing the Invoice Electronic Services following the national model established by the ABRASF (Brazilian Association of Finance Departments) and other Brazil's State Capital Cities. The "NFS-e" consists of one or more Web Services receiving tax information provisioned by taxpayers. Such information, transmitted in XML format and digitally signed, generates invoices with legal validity to be stored in government databases. I performed requirements gathering and documentation, risk analysis, designed UML diagrams (Use Cases, Classes, Activities, and Sequences) and Entity-Relationship diagrams.

Registration of Property Exchange Taxation (ITIV-e) (Main technology: **.NET**)

Oct 2004 – Apr 2009

Technologies: *ASP.NET, .NET AJAX Toolkit, CSS, HTML, Visual Basic 6, SQL, PL/SQL, Oracle.*

Description: Performed analysis and developed a functional prototype of a web-based solution for automating the process of ITIV registration (tax for property exchange) of real estate companies, notaries and financial entities, easing the process and assisting the secretary in supervising financial disputes related to real estate. Performed requirements gathering and documentation, risk analysis, created UML (Use Cases, Classes, Activities and Sequence) and Entity-Relationship diagrams. Developed using MVC architectural pattern and plenty of GoF Design Patterns.

GIS Module for Attendance Tax System (SAT-GIS) (Main technology: **Visual Basic 6**)

Oct 2004 – Apr 2009

Technologies: *Visual Basic 6, SQL, Oracle, Terralib.*

Description: I implemented a GIS module coupled with the Tax Services System to georeference real estate units and relate them to the property and land data held by the tax department for calculating property taxes. I collected and documented requirements, performed risk analysis, created context diagrams, data flow diagrams, and Entity-Relationship diagrams. The module, developed in Visual Basic 6 and Terralib technology, consisted of the possibility of drawing the borders of real estate lots and streets on a satellite image to assist in calculating the IPTU (Property Tax) of the city's properties.

Real Estate Units Relisting for the Attendance Tax System (Main technology: **Visual Basic 6**)

Oct 2004 – Apr 2009

Technologies: *Visual Basic 6, SQL, PL/SQL, Oracle, MS Access, MS Excel, Terralib.*

Description: I coded a system for importing a considerable amount of textual and vector data collected by an outsourced aerial survey engineering company. The data was imported into the SAT System's real estate database, and data inconsistency reports were automatically generated. I performed requirements gathering, risk analysis, and documentation. The desktop module used Visual Basic 6 to read the textual and vector data and write it to an Oracle database. PL/SQL in stored procedures and stand-alone scripts was used to restructure the information to fit into existing tables. The textual data was read from Excel spreadsheets or an MS Access database. The georeferenced data was saved using TerraLib, an open-source geographic information system (GIS) software library.

Version Upgrade System (SAV) (Main technology: **.NET**)

Oct 2004 – Apr 2009

Technologies: *ASP.NET, VB.NET, Visual Basic 6, XML and Oracle SQL.*

Description: An administrative desktop module developed for version management. It was a small system to help the maintenance team automatically update the Tax Administration System (SAT) versions. The solution consisted of a client component installed on every personal computer using the system that checked new versions using HTTP requests and downloaded the update to be installed through an FTP request. Performed requirements gathering and risk analysis and wrote the documentation and the user guide.

System Analyst @ Funcate (Nov 2003 – Oct 2004)

Re-registration of Properties in Geoprocessing System (GIS) (Main technology: **Visual Basic 6**)

Nov 2003 – Oct 2004

Technologies: *Visual Basic 6, Terralib, SQL, MS SQL Server, Entity-Relationship diagrams.*

Description: I led a team that started implementing a desktop application capable of georeferencing real estate units, enabling drawing lot boundaries and street lines over satellite images for area and distance calculations and saving the geospatial data model in a relational database using TerraLib open-source geographic information system software library. I traveled daily from São José dos Campos, where I lived, to Pindamonhangaba, the city where the team was based. Later, I finished developing the system by myself in Salvador City, Bahia, at the client's branch, an aerial survey engineering company specializing in cartography, registration, assessments, and geoprocessing that carried out the aerial photogrammetric coverage of the city. I gathered the system requirements, created the entity-relationship diagrams, and wrote the technical documentation and the user guide. During the deployment phase, I was responsible for training the client's user group on the tool and stayed for over a month in Salvador City, performing adaptative and evolutive maintenance.

Software Engineer @ Portais Brasil Tecnologia – PBT (Oct 2001 - Oct 2003)

Paulista Prefecture Integration System (Main technology: **Java**)

Sep 2003

Technologies: *Java, Servlets, JavaServer Pages (JSP), Apache Struts (1.1), Apache Tiles, JDBC, Javascript, HTML, Apache Tomcat, PostgreSQL.*

Description: I was the technical leader responsible for developing a proof of concept/prototype project to integrate and centralize all information from the departments of the City of Paulista using only Open Source technologies as the main requirement. The operating system was a Linux distro and the database was PostgreSQL.

Database Recovery (Main technology: **Oracle**)

Aug 2003

Technologies: *Oracle*

Description: I took the role of a database administrator on a Windows 2000 platform only to recover an Oracle 8i database stored in datafiles from another server. I performed an off-line data, control and password files backup recreating the original database tablespaces and structures into a different server.

Sales Administration System (SAV) (Main technology: **Java/Oracle**)

May 2002 – Aug 2002 and Dec 2002 – Jul 2003

Technologies: *Java, JavaServer Pages (JSP), Enterprise JavaBeans (EJB), Java Database Connectivity (JDBC), Apache Tomcat, Javascript, HTML, SQL, PL/SQL, Oracle.*

Description: The application was responsible for managing sales of mobile telephony plans. I have started as a Java developer implementing a Use Case for a Distributed WEB System for managing sales of mobile telephony plans using J2EE (EJB, JSP, JDBC) and Javascript in a Websphere Application Server with Oracle SQL database on a Windows 2000/XP platform. After a while, I took the role of the Database Developer performing maintenance and performance tuning of PL/SQL scripts. I was responsible for detecting and correcting inconsistencies in queries, tables and indexes. Also created the entity-relational diagrams for documentation purposes.

DISPON (Main technology: **Java/Oracle**)

Apr 2002 and Sep 2002 – Nov 2002

Technologies: *Java, JavaServer Pages (JSP), Java Database Connectivity (JDBC), Apache Tomcat, Javascript, HTML, SQL, PL/SQL, Oracle.*

Description: Performed corrective and evolutionary maintenance of a WEB system to control field equipment of the Hydroelectric Company of São Francisco Valley (CHESF), like towers and transmission lines. The application was developed using Java, JSP, JDBC, Javascript, HTML, Tomcat and the Oracle database (with SQL e PL/SQL stored procedures) on a Windows 2000/XP platform.

Shopping Center Audit System (SAT) (Main technology: **Delphi**)

Oct 2002 – Mar 2002

Technologies: *Borland Delphi, MS SQL Server, MS Acces.*

Description: I was a Delphi programmer for a Desktop Application for administration and analysis of the shopping center audit process. Was responsible to model UML class and sequence diagrams and entity-relationship diagrams along the System Analyst. The databases were the MS SQL Server and MS Access. The platform was the Windows 95/98/XP.

Software Developer (Internship) @ CPTEC / INPE (Apr 2000 – Oct 2001)

Data Visualization for Data Collection Platforms (VISPCD) (Main technology: **Visual Basic 6**)

Apr 2000 – Oct 2001

Technologies: *Visual Basic 6, HTML, MS Access.*

Description: VISPCD was a desktop application for graphical visualization of data from data collection platforms (PCD) by importing textual information, through an FTP request, to a local database.

I performed the Requirements Gathering and documentation in addition to the Entity-Relationship Diagram. The technology used was Visual Basic 6, persisting the information in an Access database. All documentation was created using pure HTML.

Climate Database (BCD) (Main technology: **Oracle**)

Apr 2000 – Oct 2001

Technologies: *Oracle, Oracle Forms, Oracle Designer, SQL, PL/SQL.*

Description: I was part of the team that performed the analysis and development of the climate database (BDC). I developed the application for viewing and calculating data from satellites using Oracle SQL and PL/SQL on Oracle Forms. The database modeling and the Entity-Relationship Diagrams were done using Oracle Designer.

Software Developer (Internship) @ Infosol Sistemas (Mar 1998 – Mar 2000)

Inventory Control System (Main technology: **Delphi**)

Mar 2000

Technologies: *Object Pascal, Borland Delphi.*

Description: Development of the printing module of a Desktop Application for a dairy company's inventory control. Used Borland Delphi (versions 3 and 4) to access a Dot matrix printer Windows driver. Data was read from an Interbase Database running on Windows 95/98/NT.

PassPort (Main technology: **Delphi**)

Mar 1998 – Feb 2000

Technologies: *Object Pascal, Borland Delphi 2, Interbase.*

Description: I was an intern in the developer role for a desktop application controlling sales and bookings of bus tickets for a company from the state of Paraíba. I was responsible for developing the module for controlling bus seat reservations, dynamically drawing the vehicle map, and distributing seats according to each vehicle model. All information was saved in a relational database, and all remote client applications were updated in real-time to avoid concurrent seat reservations.

Courses and Workshops

Be MEAN – Creating Systems using JavaScript
May, 2014 – Cake Roll Brasil – Recife, Pernambuco Brazil

Knowledge Transfer Formation Program – PFM
July, 2013 – M4 Consultoria de Gestão – Recife, Pernambuco Brazil

Workshop: Conflicts Management using TKI – Thomas-Kilmann Instrument
March, 2013 – Fellipelli – Recife, Pernambuco Brazil

Introduction to Web Development using JSF and JPA
November, 2009 – InfoQ Jr. – Salvador, Bahia, Brazil

Software Project and Analysis using UML
March, 2007 – Quality Software Processes – Salvador, Bahia, Brazil

Java Programming
November, 2001 – Portais Brasil Tecnologia – Recife, Pernambuco Brazil

Oracle Forms Developer 6i: Building Internet Applications II
March, 2001 – Oracle Education – São Pauo, São Paulo, Brazil

Oracle 8i Application Tuning
February, 2001 – Oracle Education – São Pauo, São Paulo, Brazil

SQL-Server
November, 1998 – Laboratório de Sistemas de Informação – LSI (UFPB)

Delphi Programming
October, 1997 – Coordenação de Projetos, Eventos e Extensão – COPEX (UFPB) - Campina Grande, Paraíba, Brazil

Basic UNIX
June, 1996 – Coordenação de Projetos, Eventos e Extensão – COPEX (UFPB) - Campina Grande, Paraíba, Brazil