Pedro Ribeiro

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Career Highlights

30 Years of Experience	As a full stack developer, I have navigated a diverse technological landscape, from the old days of MS-DOS development to Servless Architecture in AWS. This experience has allowed me to bridge various industries, from archeology to health insurance, while remaining connected to the ever-evolving world of technology.
Stellantis Wiring Diagrams Platform.	Industry-leading vehicle diagnosis software utilized by Mopar dealers and Stellanti's factories across the US, Europe, and Latin America, with tens of thousands of daily active users.
DishKin	Co-Founder, Designer, and Builder of a former local restaurant promotion website in Metro Detroit with 3,000 customers
Agile / XP Consultant	As a metro-detroit resident, I am proud to have been part of former Pillar Technology, a company with a reputation for its Agile and Test-Driven Development (TDD) culture, where I was able to provide mentorship to numerous developers not just on TDD but also on Software Craftsmanship, Functional Programming and SOLID principles.
Hands on Tech Lead	I possess innate leadership qualities and frequently serve as a point of reference for my team. My inaugural experience as a technical lead dates back to 2000 in Brazil. As a craftsman, I have consistently been a source of inspiration and a collaborative force for those striving to excel in their roles.

Experience

Solution Architect / Sr. Software Engineer   08/2021 - Present

Slalom, Detroit, MI

- **Corewell Health**, *Greenback Accumulator Sync* : In an initiative to reduce prescription costs for members by providing access to alternative pharmacy locations with more competitive pricing, Corewell Health (formerly Priority Health) collaborated with Greenback Health. Slalom was tasked with creating a system that would seamlessly merge GBH's accumulator synchronization process with the existing prescription provider's Express Scripts system, alongside CH's Health Care Management System, Trizetto Facets.
As the Solution Architect, I first took the lead in the discovery and design of the changes in the legacy architecture to support the new vendor. I then shared the workload of the modifications with two other developers, refactoring existing modules and in-house message broker systems, and developing new microservices that were integrating into the workflow stream. All while maintained full code coverage and implementing integration tests.
Technologies : Microservices with Java 11, Apache Camel, Active MQ, Spring, JAXB, Oracle, RedHat OpenShift Kubernetes, Integration Tests with Docker.

- **Slalom Internal**, *Flutter accelerator* : Flutter allows the development of mobile applications for both iOS and Android platforms using one single code base written in Dart. Accelerators projects aim to create the latest prescriptions on key features of development on the platform in order to speed up development for a new engagement: codebase setup and organization, dependency injection, use of API and Database access, theme configuration, device access, unit and integration testing, and other features.
As an IC, I was responsible for integrating a flutter application to Open Library open APIs, local storage of favorite items, and implementing Slalom's UX theme and designed experience, aimed at all of the company's mobile platforms accelerators
Technologies : Flutter, Dart, Riverpod, OpenApi_Generator, Freezed and Isar Database

- **Securian**, *Project Trident* : As a financial service industry leader, Securian had the difficult task of migrating their US-based services, batch jobs, and DB2 data to Canada-based servers and MSSql databases, before a deadline set by the Canadian government. It was a massive engagement involving multiple teams covering dozens of internal systems.
As the architect and leader of a team of 5 practitioners, a fraction of the total workforce of the engagement, I helped the pod modify, test, and manage the migration of identified batch jobs from US-based DB2 to Canada-based MSSql Server.
Technologies : Java 11, Spring Batch, DB2, MS SQL Server

- **Corewell Health**, *Priority Well Choice Benefits* : PWCB encourages customers to make healthier choices, enabling them to earn points that can reduce their health insurance costs.
As a Senior Engineer, together with one more engineer, I developed AWS components that asynchronously collect data from multiple datasources stream into a single database, in order to calculate complex membership status, dispatching further messages down the stream. This was a fully serverless project and we were responsible for also managing cloud formation through CDK.
Technologies : Python Plaform(AWS Python SDK, Pytoolz,Dependency and Packaging with Poetry), AWS Services (Lambda, Step Functions, Glue, S3, SNS, Cloudwatch, Dynamo DB, including collaboration and mentoring DevOps team on creation of AWS Cloud Development Kit/CDK components)

- **Cabinet Works Group**, *Marketplace* : As the industry leader manufacturer of kitchen cabinets in the country, CWG through this engagement, aimed to centralize the multiple ERP systems acquired over the years into a single marketplace where orders were placed and tracked.
  As an Individual Contributor, covering the main architect in parental leave, I was responsible for implementing new requirements on translation rules and increasing the test coverage of Azure Functions part of the ETL processes of database migrations from ERPs with Oracle and MS SQL Server as databases.
  Technologies : C#, .net Entity Framework Core, Azure Functions, Azure Service Bus Triggers, Automapper, Polly, Moq, Azure Cosmos DB, Oracle and MsSQL Server

- **Route One**, *Fusion Virtual Retailer* : Fusion is a car-buying web application, seamlessly integrated with the country's leading dealer management software: Route One's dealer manager. When Fusion is embedded on any dealer's website, it empowers car buyers to choose financing options, apply for financing, obtain Kelly Blue Book trade-in evaluations, and schedule test drives.
  As a full-stack Sr. Engineer, my responsibilities included collaborating with the UX designers, DevOps, and architect, supporting and mentoring junior developers, building full-fledged web components according to the specifications, customizing the legacy microservices systems to accommodate new requirements, and managing technical debt.
  Technologies : Angular 13, NgRX, TypeScript, Node.js, Lodash, Spring Boot, Java 11, Docker, Kubernetes, Oracle

Sr. Software Engineer   07/2018 - 08/2021

GRID, Troy, MI

- **Vehicle visualizer**, *Digital twin* : Application that produces a vin specific 3D representation of a given vehicle using pre rendered artifacts and combining them on demand based on vehicle's connectors and circuits, in less than 30 seconds using AWS Lambdas, SNS and S3 services. The final version is rendered to different client applications using proprietary wrapper to WebGL.
  Designed and implemented full solution from front end to AWS components
  Technologies : Java 11, Spring MVC, Node.js, ES6, SQLite, Lodash, jQuery, Web Pack and Bootstrap 4, AWS EC2, DynamoDB, SNS, S3, Lambdas

- **Antaris Systems**, *Authoring Platform* : Mopar dealers rely on many resources to fix vehicles: step-by-step instructions, visualization of components in both 2D and 3D, circuit metadata, platform, and VIN-specific diagrams. All these artifacts are carefully crafted by a team of dozens of technical authors, in a series of different web applications. In collaboration with publishing managers, I engineered new features that increased the productivity and quality of their teams who are responsible for authoring 3D locations, vehicle metadata, and diagrams to the Mopar Service Library. I also refactored the VIN-specific algorithm built the first time I joined the company in 2010-2014 in Kothlin.
  Technologies : Bootstrap 4, WebPack, Node.js, Es6, Lodash, Mustache, Java 11, Kotlin, Gradle, Spring 4, Spring Boot, MySQL, SVG and DOM

Lead Developer / Research Developer   07/2016 - 07/2018

Tweddle, Detroit, MI

- **Intelligent Diagnostics** : I.D. was designed to significantly reduce the amount of time a dealer technician takes to solve car issues. It converts the steps defined in Service Manuals into a series of questions and answers. I.D. was integrated with Empolis, A Cloud Service Knowledge Graph database, that provides analytical solutions based on the error codes (DTC/ECU)
  As a team leader I split the development with a team of two developers and one QA, mentoring, reviewing and managing the backlog.
  Technologies : Node.js, Jade/Pug Templates, ES6 JQuery and Plugins on the front end. MongoDB as database. Node Kue to process ETL jobs with Empolis with XML/XSLT to integrate with company CMS content. jQuery in the front end with 3D SDK, Java 8, Spring 4, AWS Dynamo DB, AWS SNS, AWS Lambdas, Node.js, ES 6, Web Pack and Bootstrap 4. Swagger, Travis CI, Ansible and Terraform

- **VIN Decoder** : Microservice responsible for verifying and decoding VINs, using previously cached data or using FCA's (Stelanttis) VIN API
  As the only engineer, I set up and built the project from beginning to end.
  Technologies : Scala, Play Framework, Travis CI, Ansible and Terraform

- **TRACER** : Diagnostics tool tailored for the most common problems in a vehicle assembly line.
  As an IC I joined a team with two other Sr. engineers aiming to add velocity to the project, building React components and backend improvements
  Technologies : Python, React / Redux, Swagger, Travis CI, Docker, Ansible and Terraform

- **Forest River RV** , *Interactive manual* : Prototype that would integrate owners manual to a skill in Echo, allowing the owner to ask questions, see videos or read instructions from the device.
  Responsible for researching and building this prototype on this relatively emerging technology.
  Technologies : Es6, Alexa SDK, Aws S3, AWS Dynamo DB

Sr. Software Developer   09/2015 - 07/2016

RIIS, Troy, MI

- **AIM, Farmington Hills**, *Digital Inspector* : Part of RIIS front on developing AIM's second generation of their inspection management system. With thousands of Inspectors, AIM relied on the team to deliver a responsive, scalable and integrative architecture that handles their complex tasks of audit planning, workflows of approval and client's data feed management.
  As a Sr. Developer, I contributed to architectural design, supervised and mentored Jr developers on the level and quality of their craft, implemented the solutions in both backend and frontend as well as batch processing ETL jobs with Spring Batch
  Technologies : Rest, Angular, Gulp, Javascript, Lodash, Node.js, Sass, Java 11, Spring(Boot, MVC, Batch, Data), Coffee Script, Groovy, Hibernate, Liquibase, Oracle, Gradle, AWS EC2 and S3 services.

Sr. Software Craftsman   03/2014 - 09/2015

Pillar Technology, Ann Arbor, MI

- **Ford, Allen Park MI**, *GFORCE* : Part of Pillar's transformation team on the vehicle configuration system, named GFORCE V3. This initiative aims to demonstrate to IT Ford how to achieve true rapid development and true scalable systems using TDD, micro services and continuous deployment.
  I helped the team with velocity gains, implementing backlog tasks, troubleshooting technical problems, and integration with partner systems.
  Technologies : Spring Boot(MVC, Batch, Data), AspectJ, Hamcrest, Mockito, JSF, JPA, Hibernate, MSSQL Server, Maven, Nexus, Accurev, Jenkins, Jira and IBM WebSphere.

Sr. Software Developer   07/2010 - 03/2014

GRID, Troy, MI

- **Chrysler Wiring Diagrams**, *Service Library* : A support website for the Mopar service department, that provides, manuals, instructions, electronic metadata, platform electrical diagrams, and VIN-specific wiring schematics.
  As the initial developer on the project, I designed and executed the implementation of the wiring schematics VIN-specific rendering service. Later joining a team building the Antaris Systems, a set of satellite projects that produced diagnostic artifacts used by technicians and engineers.
  Technologies : LessCss, Bootstrap, Ajax, JQuery, JSTL, Velocity, SVG, Spring(MVC/Security/Transactions), JPA, Hibernate, Liquibase, HSQLDB, MySQL, DB2, MongoDB, Maven, Ant, Git, Jenkins, Jira and Trello, Apache, Jetty, Tomcat and IBM WebSphere.

- **Atlantic Media**, *Tennis.com* : GRID partnered with Atlantic Media on the design and development of the second phase of Tennis.com.
  I was responsible for gathering the requirements, implementing web design in the frontend, writing the new backend from scratch using Django, migrating features from legacy ASP.Net site, deploying in production, and tunning the site against latency and traffic to successfully support a daily number of 1 million visitors
  Technologies : LessCss, jQuery, Python, Django, PostgreSQL, SouthDB, Apache, NGIX, GIT and Trac, MS ASP, MSSQL Server.

Co-founder CTO   07/2011 - 01/2013

Dishkin, Troy, MI

- **Restaurant Deals**, *Dishkin* : Dishkin started as a Groupon competitor focused exclusively on the food industry deals in Metro Detroit. The business model of the site changed to a take-out/delivery system like GRUB / HUB. It had a customer base of 3000 clients. It was discontinued due to lack of investment.
  As the technical partner, I was responsible for all facets of the website development, frontend and backend, integration with Payment Processors, infrastructure and security, and administration modules.
  Technologies : Spring MVC, Apache Tiles, Less CSS, JQuery, JQueryMobile, Responsive Design, Authorize.Net API, MySQL, JBoss, Tomcat and Jetty.

Agile Developer   09/2009 - 07/2010

Cengage Learning, Farmington Hills', MI

- **Online Educational Products** : Part of the hand selected team responsible for generating the base Portlet framework that was then used across all library educational projects of the company, with a key role in integrating with Spring and IOC.
  Technologies : JQuery, JBoss Portal, Portlets, Restlets, Spring, XPath, XSLT

Lead Application Developer
05/2007 - 11/2009

DialogDirect (Budco), Highland Park, MI

- **Brand Management Platform** : Responsible for designing and developing components for the Brand Management Platform, like event processes, workflows and heavy load XML integrations.
Technologies : ANT, Subversion, Jenkins, JMeter, Easy Mock(1.0 and 2.0), Apache Struts, JSTL, PrototypeJs, JBoss, Spring Template, Hibernate, Oracle 10, XLSLT, XPath, XML, Dom

- **GM**, *GM Navigation Disc* : As a Lead developer I implemented features from high critical operations for GM China, created through a JSP parser that converted text in custom tags, and implemented web redesign with friendly user interfaces and I18N support.
Technologies : ANT, Subversion, Jenkins, JMeter, Easy Mock(1.0 and 2.0), Apache Struts, JSTL, PrototypeJs, JBoss, Spring Template, Hibernate, Oracle 10, XLSLT, XPath, XML, Dom

Developer
07/2005 - 03/2007

Interlink, Berrien Springs, MI

- **CM2** : Design and development of an ETL tool (Extract Transform and Load) that is extensible with plug-ins for parsers and mappers, with a visual editor that allows mapping of fields into pdf files to generate reports.
Technologies : Python, wxPython, XML, XSLT and Firebird Database.

Developer
08/2004 - 12/2006

Andrews University, Berrien Springs, MI

- **Physics Department**, *3D Scanner Visualization* : An application that exhibits 3D images of scanned archeological artifacts in OpenGL.
Technologies : OpenGL, C++, wxWindows ,STL and cppUnit

- **Physics Department**, *Time Sheet Journal.* : An intranet website that records the summary of categorized work hours and provides analytical reports for the management of department's budget.
Technologies : Apache/mod_python, JavaScript and DHTML, Python, XML, Firebird and Linux.

- **Archaeology Department**, *Madaba Plains Project* : Software that manages the data acquired on archeological digs, providing an off-line mode, user friendly interface. The data is then remotely synchronized and stored in a central subversion repository with relational integrity. Also, the application provides integration with Excel, Word and Access allowing the user to analyze and create reports with selected and filtered data.
Technologies : Python 2.5, wxPython, integration with Subversion through pysvn, pyVelocity, WiX and firebird embedded

Experience in Brazil

Lead Developer / Consultant
06/2002 - 07/2004

Trust Consultants, Sao Paulo, Brazil

- **Bearing Point**, *Oracle Exchange OEX* : Customization of Oracle Exchange (OEX)'s modules and development of Integration between OEX and SAP for the National Steel Manufacturing Company of Brazil (CSN).
Technologies : JSP/ Java Servlets, Oracle Web Methods as ETL tool and Oracle/PLSQL.

- **Nokia**, *Code Blood Project* : website for open source development of mobile software. It provided services to the open source community similar to sourceforge.net: code repository, internet hosting, forums and mailing lists.
Technologies : Struts / JSTL/ JBOSS (EJB/CMP's), XDoclets / Ant / MS Cruise Control and PostgreSQL Database

- **GEMCO bematech.com.br** : Swing Java application that controls supermarkets' cashier register using a Linux terminal. Creation of libraries and Java classes to integrate with Linux libraries for Electronic Fund Transfer
Technologies : Java Native Interfaces-JNI. Development of C++ Library to integrated with JNI proxy classes.

Developer
01/2000 - 06/2002

Vesta Technologies, Sao Paulo, Brazil

- **Vesta Market** : An e-procurement platform from Vesta Technologies serving main corporations of Brazil such as Embratel, Serpro and Votorantim of Brazil.
Technologies : MS VB Web-Classes, client and server JavaScript, and maintained C++ COM/ATL Objects.

Developer   05/1995 - 12/1999

Ibelli Fainzilberg, Sao Paulo, Brazil

- **LIBS Pharmaceutic** : Sales Rep Scheduler desktop application
  Technologies : Delphi, Pascal, MS Sql Server

Education and Certifications

- **AWS Certified Cloud Practitioner** : January 2024
- **Java Certified Programmer** : JDK 1.3. August 2002
- **MCP 70-315** : Developing and Implementing Web Applications with Microsoft Visual C# .NET – Feb/2007
- **University of Michigan**, *Dearborn* : Junior year in Physics and Mathematics.
- **Federal Technical School** : São Paulo Brazil, Data Processing, Computer Science Curriculum – 1994