Alex Costa

###### Fullstack Developer



# Presentation

I am a full-stack software engineer and have been working since 2012 with software development for web and mobile. I started my career as a .NET programmer, initially as a back end, and in 2015, I also specialized in front-end development with HTML, CSS, JavaScript, and Cross-platform development with Ionic Framework, React Native, and Flutter . As a web software engineer, I’m especially interested in building magical web experiences, scaling systems up, and releasing reliable programs.

# Skills

HTML,CSS,JavaScript,Typescript,ES6,Angular,React,Vue,C#,NodeJS,Postgres,SQL Server,MongoDB,Redis,AWS,Git,GitLab,GitHub,Docker,Kubernetes,Rest API,Ionic Framework,Cordova,PhoneJciSpo,StenpaFlS

# Work Experience

**Web and Mobile Development**  
LDW Solutions • 2015 Q1 - 2024 Q3  
Skills: AngularJS, ReactJS, jQuery, JavaScript (Vanilla), Typescript, NodeJS, HTML5, CSS, SASS/LESS  
Since founding my consultancy in 2015, I have successfully navigated various projects across multiple industries, delivering innovative web and mobile solutions that meet and exceed client expectations. My role as a developer consultant has allowed me to showcase my technical expertise and demonstrate my ability to understand and address the unique challenges clients face in various sectors.
Notable Success Story:
One of my most impactful projects was with Fiore Comunicação in the pharmaceutical industry. Here, I spearheaded the development of a cutting-edge web system that revolutionized how physicians demonstrate and sell pharmaceutical products through virtual visits. By leveraging my web and mobile development expertise, I created a user-friendly platform that facilitated seamless interactions between physicians and clients, ultimately driving increased sales and customer satisfaction.
● Key Experiences:
○ Financial Sector: At Huge Inc., I played a pivotal role in developing a web system for personal loan management, catering to the specific needs of BV Financeira company. My contributions helped streamline processes and enhance efficiency, improving service delivery and client satisfaction.
○ Real Estate: With Agency Kindle and APSA Real Estate, I undertook the challenge of developing and maintaining a mobile application for condominium management, catering to liquidators and property owners. This project showcased my ability to create intuitive and feature-rich mobile solutions tailored to the unique requirements of the real estate industry.
○ Education Sector: At Metta Sistemas, I led the enhancement of a web system built on the PLATFORM TOTVS RM LABORE, focusing on improving performance and usability to serve associated schools better. My efforts resulted in a more efficient and user-friendly platform, empowering educators to streamline administrative processes and focus on delivering quality education.
○ Metallurgical Industry: With First Decision and SAP Solutions, I contributed to developing a web system for managing inventory, purchasing, and selling products within the metallurgical sector . My expertise in web development and inventory management systems played a crucial role in optimizing processes and improving operational efficiency for the client. Throughout these projects, I utilized a wide range of languages and frameworks, including AngularJS, ReactJS, jQuery, JavaScript (Vanilla), Typescript, NodeJS, HTML5, CSS, and SASS/LESS, to deliver bespoke solutions tailored to each client's unique requirements.

**Senior FullStack Developer**   
LDW Solutions / GFT / Benchmark Capital • 2023 Q1 - 2024 Q3  
Skills: .NET,SQL Server,ReactJS,Typescript,Jest,ViTest,TeamCity,Octopus,Docker,Azure  
Led the development of a greenfield client risk profile application, collaborating with a multicultural team of 5 engineers and utilizing agile methodologies (Scrum, SAFe) to deliver a production-ready solution within a 2-year timeframe. This involved:
● Architecting and Implementing Microservices: Designed and built a robust microservices architecture using .NET Core 6/8, ensuring scalability, maintainability, and seamless integration with existing internal systems. This included creating APIs and facilitating their consumption by other teams.
● Integrating with External Providers: Successfully integrated the application with external providers such as Oxford Risk API and Medallia (Client Survey) via secure APIs, enhancing the platform's functionality and data enrichment capabilities.
● Ensuring Security and Performance: Implemented robust security measures, including JWT, OBO Token, Microsoft APIM, and Okta Identity Provider, to protect sensitive client data. Optimized performance through efficient database design (SQL Server) and streamlined API interactions.
● Front-End Development: Developed a user-friendly interface with ReactJS (versions 17 and 18) and Typescript, employing Jest and ViTest for comprehensive front-end testing and state management with the Redux toolkit.
● Continuous Integration and Deployment: Leveraged TeamCity, Octopus, and Docker to establish a CI/CD pipeline, enabling rapid and reliable deployments to Microsoft Azure.

**Solution Architect**   
LDW Solutions/ProjectBox • 2022 Q2 - 2023 Q2  
Skills: .NET, ReactJS,Jest,Docker,Azure,DevOps,Kafka,Flutter,Bloc,Keycloak,Angular  
A partnership was signed to serve some clients from different sectors, focusing on meticulous design and implementation. I have led transformative projects in both the academic and enterprise landscapes.:
● University – In my capacity as a Solution Architect, I spearheaded a collaborative effort to enhance the technological infrastructure of a prominent university. Leveraging my Dotnet Core 6 and ReactJS 18 expertise, I engineered robust APIs and single-page applications that optimized performance and user experience. Utilizing industry-leading frameworks such as Jest for front-end unit testing and xUnit with Moq for API testing, I ensured the reliability and scalability of the system. Containerization through Docker, CI/CD integration with Azure DevOps, and integration of Kafka messenger service underscored my commitment to cutting-edge solutions. Additionally, I led mobile development initiatives utilizing Flutter, Bloc for state management, and Keycloak for the Identity server, ensuring seamless cross-platform functionality and security.
● Enterprise Architecture Tools – Within the realm of Enterprise Architecture Tools, I led the evolution of existing software into a sophisticated version 2.0. Through strategic utilization of Angular 13 and innovative approaches such as dynamic application creation (Page Builders), I optimized performance and stability, setting new benchmarks for efficiency. My emphasis on quality assurance was evident in the selection of Jest for comprehensive front-end unit testing, ensuring the system's resilience.

**Senior .Net Developer**  
LDW Solutions/Genesis Studio • 2022 Q2 - 2022 Q4  
Skills: .NET,  
I have undertaken a pivotal role in orchestrating architectural transformations and performance enhancements for a prominent client. My expertise is crafting comprehensive solutions that address immediate challenges and pave the way for sustainable growth and innovation.
● Key Accomplishments:
o Architectural Restructuring: I spearheaded a strategic initiative to reform the architecture of legacy systems to align with modern standards and best practices. I orchestrated a seamless transition toward a more scalable and robust framework by leveraging my in-depth understanding of architectural principles and domain-specific requirements.
o Performance Optimization: Recognizing the critical importance of optimized performance, I
implemented targeted strategies to enhance API performance. Through meticulous analysis and fine-tuning of Entity Framework 6, I optimized query execution, Lambda functions, and LINQ to SQL, significantly improving system efficiency and responsiveness.
o Framework Migration: I led the successful migration of the client's infrastructure from Dotnet
Framework 4.8 to Dotnet Core, ensuring minimal disruption to ongoing operations while unlocking the full potential of modern development frameworks. This involved a comprehensive migration strategy, including uncoupling legacy code from specific libraries, transitioning to RESTful APIs, and eliminating direct database access, thus enhancing flexibility, scalability, and maintainability.
o Emphasis on Best Practices: I prioritized adherence to industry best practices and standards throughout the engagement, ensuring that all architectural decisions aligned with the client's long-term objectives and regulatory requirements. By championing the adoption of modern development methodologies and architectural patterns, I facilitated a culture of continuous improvement and innovation within the organization.

**Technical Lead**  
Capgemini Engineer • 2022 Q1 - 2022 Q2  
Skills: SaaS, VueJS,Tailwind CSS,Pinia,Spring Boot,Kotlin,Keycloak,  
I played a pivotal role in driving transformative projects within the realm of network and SaaS products. A deep understanding of cutting-edge technologies has enabled me to lead high-performing teams and deliver exceptional results.
● Key Accomplishments:
o Leadership Excellence: I have led a dynamic technical team of three developers, fostering a
collaborative, high-performance culture. Through effective communication, mentorship, and
empowerment, I have cultivated a team of skilled professionals dedicated to achieving excellence and exceeding client expectations.
o Strategic Technology Selection: Leveraging my expertise and strategic vision, I have carefully curated a tech stack tailored to the unique requirements of our projects. We utilize VueJS, Tailwind CSS, and Pinia for the front end, harnessing the power of modern frameworks and tools to deliver intuitive and visually stunning user experiences. We have adopted Spring Boot with Kotlin on the backend and Keycloak for the Identity server, ensuring seamless cross-platform functionality and security and embracing a microservices-based architecture to ensure scalability, flexibility, and resilience.
o Collaborative Problem-Solving: As a Technical Lead, I have spearheaded collaborative efforts to address complex technical challenges and drive innovation. By fostering an environment of open communication and cross-functional collaboration, I have empowered my team to brainstorm creative solutions, iterate rapidly, and overcome obstacles with agility and efficiency.
o Continuous Learning and Growth: As a passionate advocate for professional development, I actively encourage and support ongoing learning initiatives within my team. Whether through workshops, training programs, or knowledge-sharing sessions, I prioritize cultivating a learning mindset, ensuring that my team remains at the forefront of emerging technologies and industry trends.

**Senior Consultant Engineer**   
LDW Solutions/Capgemini Engineer • 2021 Q3 - 2022 Q1  
Skills: C++,NodeJS,Angular,AWS  
I was allocated to a client who specialized in scientific metrics and embedded systems for laboratories.
● I maintain and update embedded systems written in C++, NodeJS, and Angular 8+.
● For the front end, we use Angular 8+ and NodeJS in the back end for APIs that communicate directly with the native APIs of a Linux-embedded system.
● Task management and code lifecycle with the entire Atlassian stack (JIRA, Bitbucket, Confluence).
● CI/CD was made with Jenkins and AWS, unit testing, and Karma/Jasmine and Sonar code quality.

**Senior Front End Engineer**   
LDW Solutions/Team International • 2021 Q2 - 2021 Q3  
Skills: VueJS,NodeJS,PHP,GraphQL,ESLint  
Allocated to a client specialized in sleep health products.
● I maintained and updated the primary system.
● We use VueJS for the front end and NodeJS/PHP for APIs with GraphQL in the back end.
● Task management and code lifecycle with the Atlassian stack (JIRA, Confluence).
● CI/CD was made with GitLab, unit testing, and ESLint code quality.

**Technical Lead**   
LDW Solutions/Descomplica • 2021 Q2 - 2021 Q4  
Skills: ReactJS,Typescript,Tailwind CSS,NodeJS,ExpressJS,PostgreSQL,Jenkins,Jest,React Native + Expo  
● Technical team leader with three developers, one senior, and two mid-level.
● In just two months, we delivered a complete solution for school managers to measure and monitor the development of students.
● It has reduced the manual process of the Consumer Success area by 90%.
● We achieved a performance gain and agility in the end customer service by 30%, thus increasing the satisfaction of the final consumer .
● We use the ReactJS JavaScript framework for the front end with all code written in Typescript, styling with Tailwind CSS, and state management with the React-Redux library. On the NodeJS backend with ExpressJS for the APIs microservice connected to the main gateway of the company and the database, we use PostgreSQL and Redis for caching.
● CI/CD with Jenkins, unit test with Jest, report code coverage with codecov.
● For the mobile development, we used React Native + Expo

**Senior Mobile Solution Architect**  
LDW Solutions/ONS • 2019 Q3 - 2021 Q1  
Skills: Jasmine JS,karma JS,NUnit,.Net,Specflow,Sharepoint Rest API,Appium,Selenium,Google Firebase Analytics stack  
● Three main missions: improve the architecture of internal systems, deploy automation of publishing processes and code quality, and support the creation of mobile applications for the internal client (company employees).
● I created process automation with Jenkins for CI/CD, implemented unit tests with Jasmine JS, karma JS for E2E tests on the front-end, Unit tests with NUnit for the.NET, and Specflow for behavior testing (BDD) APIs on the backend, aiming at the quality of deliveries.
● I Introduced the concept of DDD in software development for better software distribution and architecture.
● I Introduced the concept of micro-apps, componentization for reuse, and standardization of visual identity for internal mobile applications.
● We created new applications based on Sharepoint Rest API to manage intranet content and client file manager .
● I created the automation of the build process of Android and iOS Apps, configuring a macOS server as slave storage in Jenkins to take advantage of the company's build pipelines.
● I Implemented E2E tests in mobile apps with Appium/Selenium.
● I supported the creation of an internal app store for Android and iOS.
● We created a data area to analyze the data collected with the Google Firebase Analytics stack.
● I supported implementing the Beta Tester Google Firebase Distribution process.
● In the back-end development, .NET/C#/Web APIs were used, in the front-end Angular 5+ and the Mobile Ionic Framework 2+ and Capacitor for access to the native APIs of mobile devices, both written with Typescript, SQL Server as a relational database, Firebase Firestore as a non-relational database.
● We create applications for several company areas:
o Kitchen, snack requests, and meeting supplies.
o Communication of suppliers with the company.
o Chat for internal communication with real-time database technology (Google Firebase)
● The highlight for support tools in the collection of information and user experience in mobile applications:
o Push Notification for warnings and monitoring of process progress;
o Dynamic Links for better user experience by clicking on links that can lead to the company's mobile apps;
o Biometrics for the security of sensitive information;

**Senior Front End Developer**  
LDW Solutions/Rio Galeão Airport • 2018 Q3 - 2019 Q3  
Skills: Spring boot,Angular,Typescript,Docker,Sharepoint Rest API,  
● With a short deadline, a lean team, and a Java specialist for the back end, I, as a full-stack software engineer and a web designer, rethought and rewrote the web of the airport's outsourced employee registration system, previously made for Desktop.
● As a premise of high availability and easy change of environment, I opted for Docker technology, created the entire environment in a virtual machine with the Red Hat operating system, and the whole build pipeline, publication, and distribution that I made via a bash script, due to the restriction of external access to the internet, integrated with an internal GitLab.
● The system is used for service and data analysis via Power BI, management support via available reports, and service improvement metrics.
● The system will be used in at least five different areas. The area of public service serves about 30 people on ordinary days and 300 people on renewal days and new contracts, integrating release of access, printing of credential badges and digital signatures, and storage and firing notifications via emails of these generated documents.
● As a result of the success achieved by this system, it is being negotiated for deployment in several other airports controlled by the group.
● For the back end, we choose the framework spring boot. For the front end, I opted for Angular in version 6, written with Typescript, Docker, and Docker Compose for containerization GitLab as version control.
● Sharepoint Rest API integration manages documents, client areas, dynamic content, upload files, synchronize items, and custom access permissions.
● Highlight the barriers found and successfully passed:
o Digital Signature Device (Integration via USB Port) – integration of a device for digital signature of contracts and requirements. We use an API installed in each desktop in the development area, sending the information entered into our system in real-time.
o Control Access (Integration) – Integration with the Rest API of access control of doors and turnstiles.
o Azure AD (Integration) – Integration with Azure AD for integrated login between the network and our web system.
o Badge printing – Layout design and specific configuration for correct printing on printers of this model.
o CI/CD via bash scripts – I have taken this line of reasoning due to access and environment restrictions All development processes should be done in a controlled environment without external access.

**Senior Mobile Developer**   
LDW Solutions/Prudential do Brasil • 2017 - 2018  
Skills: Angular,Typescript,Ionic Framework,WebApi,SQL Server  
● We delivered a complete solution to the life insurance sales team; even with time challenges and product complexity, I came in to contribute as an expert in hybrid mobile development with Ionic Framework v1 and Cordova/Phonegap.
● The product's success led to its adoption by the entire sales force in Brazil and its becoming a model for the headquarters in the USA.
● We use a variety of mobile device native API features to meet area demands, such as
o Phonebook integration for better seller customer management.
o Push Notifications for assistance in scheduled meeting reminders.
o I am handling App Settings and LocalStorage to save user settings.
o Offline mode is one of the primary needs requested by users due to regions that do not have easy access to the Internet and the fact that even then, it was possible to start a sale.
o Due to the nature of sensitive data, we use a tool for encryption and data security and a barrier against access to data files compiled via .ipa (iOS) and .apk (Android) with the company's Mobile Iron solution.
● The programming stack involved Angular 2+/Typescript, Ionic Framework 2+/Typescript, WebApi C#/.NET, SQL SERVER relational database
● In this project, I implemented the Token Management Service (TMS) for credit cards according to PCI DSS with Cybersource's APIs. I created an API in WCF/C# that the whole company used in this security and compliance process.

**Mobile Application Developer**  
LDW Solutions/Cativa Digital • 2017 - 2017  
Skills: React Native,Typescript,MongoDB,Redis  
● A startup with an innovative proposal for a white-label application to create niche social networks. I participated in product design, building architecture, data modeling, and UX/UI concepts.
● We chose React Native with Typescript to develop this mobile application, using concepts ranging from Redux and Redux-saga to application state management and good development practices such as clean code.
● The entire API was done on WebApi/.NET following DDD, TDD, Design Pattern, and Clean Code concepts with SQL server, non-relational database MongoDB, and Redis for caching.
● In its initial version, the first customer to use the solution was a community of Catholic churches, with an initial use of approximately 3000 users.

**Senior FullStack Developer**   
LDW Solutions/Impacta Lawtech • 2014 - 2015  
Skills: AngularJS,Bootstrap CSS,SQL Server,NodeJS  
My first project was working as a full-stack software engineer in a lean team, one web designer, one web crawler specialist, and me. We built an innovative solution for law.
● Innovative Process Management System: In my initial role as a full-stack software engineer, I collaborated with a lean team to develop a creative process management system tailored to the needs of lawyers in a specific niche. Leveraging AngularJS 1.6 and Bootstrap CSS, I ensured rapid prototyping and intuitive user interfaces, facilitating seamless interaction with the platform.
● Scalable Architecture: Recognizing the importance of scalability and real-time updates, I architected a robust back-end solution using Web API/.NET , applying principles of Domain-Driven Design (DDD), Test-Driven Development (TDD), Clean Code, and Design Patterns. By harnessing the power of SQL Server, I optimized data storage and retrieval, enabling efficient management of up to 1000 active processes with real-time progress updates. The client base at the time totaled more than 1,500 lawyers in Rio de Janeiro, along with an analysis of more than 10 thousand lawsuits.
● Mobile Development Expertise: To extend the reach of our solution, I utilized Ionic Framework v1 and Cordova/Phonegap for cross-platform mobile development, ensuring seamless integration with Android and iOS devices. I maximized efficiency and maintained consistency across platforms by leveraging code sharing and encapsulating business logic within the mobile application.
● Automation and Optimization: In addition to developing feature-rich applications, I implemented automation solutions using batch scripts and NodeJS, leveraging task runners such as Grunt and Gulp to streamline development workflows and enhance productivity. By automating repetitive tasks and optimizing build processes, I accelerated time to market and minimized manual effort, enabling the team to focus on innovation and value delivery.

# Education

**Postgraduate Degree, Strategic Business Management**  
UniCesumar 2023 - 2023

**System Development and Analysis**  
Estácio de Sá University 2012 - 2015

**MCSD: Web application**  
Microsoft Certification 2014

**MS: Programming in HTML5 with JavaScript and CSS3**  
Microsoft Certification 2014

**MCPS: Microsoft Certified Professional**  
Microsoft Certification 2014