Alexandre Akira Argôlo Akao

Senior Software Developer | .NET | React | JavaScript | Node

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Summary

Senior Software Engineer with a Postgraduate degree and a Bachelor in Computer Science, with extensive experience in architecting scalable, distributed systems, high-performance solutions. I have been working in the field since 2018, always seeking continuous improvement and the implementation of innovative solutions that add value to the business.

Education

Sirius, Postgraduate Lato Sensu - MBA FullStack development — May 2024 – May 2025

University of Fortaleza (UNIFOR), Bachelor's Degree in Computer Science — Jan 2018 – Jan 2022

Skills

Backend: C# • .NET • Node.js • Express • Nest.js • RabbitMQ • Azure Service Bus • GraphQL • gRPC

Database: SQL • SQL Server • PostgreSQL • NoSQL • MongoDB • Redis • Supabase

Frontend: JavaScript • TypeScript • HTML/CSS • React.js • Next.js • Storybook • Tailwind

Infra/Devops: Docker • Kubernetes • AKS • Helm • Azure DevOps • AWS • Terraform

Tools: DataDog • New Relic • SonarQube • Snyk • Cypress • Optimizely • Segment

Languages

Brazilian Portuguese: Native.

English: C1

Work Experience

Seva, Senior Full-Stack Software Engineer — Remote
Apr 2025 – present

Appointally | *TypeScript • NestJS • Next.js • MongoDB • Azure Service Bus • AWS • Terraform*

- Seva is a multi-tenant SaaS platform for business management in the services industry, covering appointments, client management, staff scheduling, subscriptions, payments, and product/service catalogs.
- Architected and built from scratch a distributed microservices ecosystem of 19 independent services following **Clean Architecture** with strictly enforced **layer boundaries**.
- Developed the full frontend portal using **Next.js**, **Server Actions**, **TanStack Query** for data fetching, and internationalization (i18n) supporting three languages.
- Engineered an event-driven messaging architecture using A**zure Service Bus** with topics, subscriptions, publishers, and consumers across all services, implementing the **Transactional Outbox Pattern** in critical payment flows to guarantee **eventual consistency**.
- Implemented a complete subscription and payments system integrating **Stripe** and **Adyen**, handling webhooks, plan lifecycle management, and billing — backed by PostgreSQL with **Prisma ORM** and **Redis** for caching.
- Built JWT-based authentication with **AWS Cognito**, along with a dedicated **RBAC** authorization service for fine-grained access control across the platform.
- Designed and provisioned the entire **AWS** infrastructure using **Terraform (IaC)**, including **VPC, EKS, RDS, ECR, S3, Secrets Manager, and ALB Ingress**, with automated **CI/CD** pipelines via **GitHub Actions** for build, push, and deploy to **Kubernetes (EKS)**.
- Developed a multi-channel notification service integrating **SendGrid** (email), **Twilio** (SMS), and **Firebase** (push notifications) with **Handlebars** templating and a file storage service using **FastAPI with AWS S3**.

AmbevTech, Senior Software Developer

Remote
Nov 2020 – present

WMS | *C# • .NET • SQLServer • Azure Service Bus • MediatR • React.js*

- WMS is Ambev's global solution for stock management, inventory control and auditing, as well as reports generating and routes establishment.
- Architected and maintained a distributed microservices ecosystem based on **Hexagonal Architecture**, **DDD**, and **CQRS** patterns with **MediatR**, ensuring strict separation of concerns, testability, and scalability for a system used in over 200 distribution centers.
- Implemented robust domain logic utilizing **C#** and **.NET Core**, integrating **Feature Flags** to allow for safe testing in production and seamless activation of new capabilities without downtime.
- Engineered asynchronous messaging consumers using **.NET Background Services (Hosted Services)** with **RabbitMQ** and **Azure Service Bus** to decouple services and ensure eventual consistency in inventory transactions.
- Implemented **Redis** for distributed locking and caching strategies, significantly reducing database load and preventing race conditions in critical stock reservation flows.
- Optimized **SQL Server** performance by implementing table partitioning for historical datasets, creating views for complex reporting abstractions, and applying strategic indexing, resulting in reduced query latency and improved resource utilization.
- Managed application observability and reliability by integrating **Datadog** for centralized logging, tracing, and monitoring, and utilized **Azure Kubernetes Service** for container orchestration.

BEES | *React.js • Node • Express • TypeScript • Redis*

- BEES is a B2B e-commerce for buying stocks of beer and products from Ambev and its partners.
- Designed and developed a Backend for Frontend (BFF) layer using **Node.js**, **Express**, and **TypeScript**, optimizing data aggregation and reducing latency between client applications and core services.
- Led the backend integration of third-party enterprise solutions (**Zendesk** and **Segment**), creating robust RESTful APIs to handle ticket management and user behavior tracking data ingestion.
- Implemented **MongoDB** as a high-speed persistence layer for the BFF, reducing load on core microservices and optimizing response times for non-relational data.
- Collaborated on the modernization of legacy architectures, decoupling monolithic system into a **micro-frontend** architecture using **Module Federation**.

Uikit | *React.js • TypeScript • Storybook • Vite*

- I developed a library of components used by the WMS, made up of 52 customizable components.
- I used **React.js with TypeScript and Vite** to ensure high performance and ease of maintenance.
- Uikit has standardized the user interface, improving the developer experience by facilitating the reuse of components and decoupling project logic.

NATI - Unifor, Fullstack Developer

Fortaleza, CE, Brazil
Aug 2019 – Nov 2020

Athena | *React.js • Node.js*

- I developed Athena, an interactive platform for creating and managing quizzes, aimed at students on various undergraduate courses. The aim of the platform was to offer a dynamic way for students to study and to allow teachers to monitor the performance and engagement of the class.
- I used **React** on the frontend and **Node** on the backend.
- The project was very well received by the students and contributed significantly to increasing engagement in the subjects.

Banca | *React.js • Node.js*

- I developed Banca, a platform requested by the Journalism course so that students could publish their articles in a centralized environment.
- I worked on implementing the frontend with **React** and the backend with **Node**.

FUNCAP, Scientific Initiation Fellow

Fortaleza, CE, Brazil
May 2020 – Oct 2020

Unifall | *Python • Machine Learning*

- The project aimed to increase the safety of the elderly by automatically alerting them in the event of falls.
- I worked on the development of a system for detecting falls in the elderly using Machine Learning. Implementation of COCO, BODY25 and MPI skeleton models for body recognition.

Personal projects

Ordenados | *Next.js • Supabase • Realtime Comunication*

Repo: Ordenados ↗

- Creation of a digital card game inspired by ITO, where players organize their cell phones as if they were physical cards.
- Development of a web platform in **Next.js** to generate the cards via **Supabase Functions**, allowing the game to be played in person without the need for physical cards.

Azure Open PR | *React.js • Vite*

Repo: Azure Open PR ↗

- I developed Azure Open PR, a browser extension that makes it easy to keep track of open Pull Requests (PRs) in the team's repositories, centralizing the view and improving PR management in work environments with multiple parallel chats.
- The extension offers a dynamic and clear view of pending PRs, helping the team to organize itself more efficiently.
- Implementation carried out with **React.js and Vite** to guarantee performance and agility.
- The solution brought more speed to the review of PRs, increasing the flow of tasks.