

Rodrigo Alvarez

Software Engineer

✉ rodrigo.alvarez@roli.to • 🌐 rodrigo-alvarezp • 🗣️ rolitoxdd • 📞 +569 9548 1898 • 📍 Santiago, Chile (Willing to relocate)

About Me

Software Engineer passionate about solving complex problems and building highly resilient systems. I leverage expertise in distributed systems, serverless environments, and edge computing (Cloudflare Workers) to drive performance. With a strong background in Full-Stack development (Go, Python, Next.js), I actively integrate AI models to create smart, scalable applications. Always striving to ensure an agile lifecycle through DevOps practices and automating cloud infrastructure (Terraform, AWS CDK). As a Chilean citizen, I am covered by the H1B1 special visa.

Experience

Co-Founder & Lead Software Engineer (Independent Project)

July 2025 – Present

Product Scanner & Price Aggregator

- Designed the distributed system architecture for product scraping and matching, working in a 2-person engineering team under a microservices paradigm in the Edge (Cloudflare Workers).
- Implemented a semantic matching engine integrating different rules such as embeddings of AI (Gemini) and vector databases (Qdrant) to analyze and dynamically associate offers from different stores to a unified catalog.
- Orchestrated asynchronous processing pipelines of high performance using the Cloudflare ecosystem (Queues, Durable Objects, KV, R2) and distributed databases in the Edge (Turso, Drizzle ORM).

Skills: Cloudflare (Workers, Queues, Durable Objects, KV, R2), Qdrant (Vector DB), Turso, Drizzle ORM, Gemini (Embeddings), DDD Architecture, Astro, React, Typescript

Software Engineer

January 2025 – Present

Foris

- Developed and maintained multiple services under a multi-tenant architecture mainly using Django, managing the central identity system (users, clients, and access) for the company's entire suite of applications.
- Implemented large-scale data processing flows (ETL) integrating internal systems, enabling the asynchronous loading, manipulation and export of large volumes of information, removing an important operational burden from the development teams.
- Automated service lifecycles by building CI/CD pipelines with GitHub Actions, and executed the configuration and deployment of new services using Helm Charts.
- Ensured platform interoperability by developing critical integrations with legacy PHP systems

Skills: Python, Django, PHP, GitHub Actions, Multi-tenant, CI/CD, ETL

Tech Lead & Backend Engineer (Freelance)

March 2024 – September 2024

Homearcy Medication Management System (Mobile MVP)

- Led the technical development of a MVP for intelligent medication management, defining the backend architecture from scratch and coordinating the tasks of a frontend team of 4 developers (React Native/Expo).
- Accelerated the integration between the frontend and backend by implementing validation schemas with TypeBox and exposing the API through OpenAPI, allowing the automatic generation of a strongly typed SDK.
- Implemented automated inventory digitization (virtual medicine cabinet) through the integration of LLM models for the recognition of medications from photos.
- Developed the core business logic with Fastify and Prisma, including a notification engine for reminders, a pharmacy price aggregator, and peer-to-peer medication sharing modules.

Skills: Fastify, Prisma, TypeBox, OpenAPI, React Native, Expo, LLM Integration (OpenAI)

Software Engineer

January 2024 – January 2025

Fundación Oftalmológica Los Andes

- Developed the comprehensive surgery administration system (replacing legacy software), digitizing the complete workflow for 100 internal users (doctors, coordinators, and clinical staff) by building the solution with Next.js and PostgreSQL.
- Led the design and provisioning of cloud infrastructure (AWS) from scratch for development and production environments, deploying networks, ECS clusters, and RDS databases using Infrastructure as Code with Terraform and Terragrunt.

- Built the institution's central "core" service for centralized data management (users, roles, and supplies), ensuring efficient low-latency communication between applications through development in go and gRPC.
- Secured and automated application access and lifecycle, integrating Authelia with LDAP for identity management, and designing CI/CD pipelines focused on continuous deployment and static type analysis.

Skills: TypeScript, React, Next.js, Go, PostgreSQL, AWS (ECS, RDS, ELB), Terraform, Terragrunt, gRPC, Authelia, LDAP, CI/CD, n8n

Software Engineer

November 2021 – January 2024

PortalTerreno

- Designed and implemented a distributed ETL serverless system for high-volume data ingestion in multiple formats (CSV, JSON, XML), reducing processing time from 12 hours to a couple of minutes using AWS Lambda and DynamoDB.
- Executed the central migration of a legacy monolithic system (PHP) to a modern, horizontally scalable, and highly available architecture, developing the new system with TypeScript, Next.js, React, Redux, and PostgreSQL.
- Automated the development and infrastructure lifecycle, ensuring code quality by building CI/CD pipelines (Jest tests, typing, linters) and managing environments using Infrastructure as Code (IaC), transitioning from Serverless Framework to AWS CDK.
- Developed asynchronous services in the cloud, deploying a cluster in AWS ECS with load balancing and developing queue-based microservices for high-volume image optimization and transactional email sending.
- Maintained operational stability by performing preventive and corrective maintenance tasks on the legacy PHP code during the architectural transition period.

Skills: TypeScript, React, Next.js, Redux, PostgreSQL, AWS (Lambda, SQS, ECS, SES, Cognito, S3, RDS, CDK, DynamoDB), Serverless Framework, Docker, Jest, CI/CD, Lerna, Python, PHP

Academic Experience

Lecturer of Data Structures and Algorithms

February 2024 – February 2025

Diego Portales University

- I taught Data Structures and Algorithms.
- Taught topics including algorithmic analysis and the functioning of data structures like lists, queues, stacks, trees, and graphs were reviewed.

Education

B.S. in Computer Science and Telecommunications Engineering

2018 – 2023

Diego Portales University