



Jose Manuel Morales Patty

Software Developer | Backend Specialist in C#

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Summary

I am a Software Developer with over two years of experience, specializing in backend development primarily using C#. My focus is on creating scalable, maintainable systems with clean architecture. I have participated in multiple projects, playing key roles in technical discussions and decision-making. My deep knowledge of backend development, particularly with C# and .NET Core, enables me to tackle complex challenges and propose effective solutions. Additionally, I hold various certifications that validate my skills and expertise. I aim for quality and scalability in every project, balancing technical proficiency with collaborative teamwork.

My commitment to a fixed, solid tech stack allows me to continuously deepen my knowledge and improve my proficiency, especially in backend development and software architecture. I am confident in my ability to lead technical discussions, make key decisions, and implement solutions that support the long-term success of any project.

Skills

Backend Development

- **C#**
- **.NET Core**
- **REST API**
- **Microservices**

- **JWT Authentication**
- **Entity Framework**
- **Docker**
- **Database Management:** PostgreSQL, MySQL

Frontend Development

- **React**
- **Tailwind CSS**
- **HTML/CSS**
- **Next.js, Angular**

Cloud & Deployment

- **Railway**
- **Netlify**
- **Firebase**

Project Management & Collaboration

- **Trello**
- **Taiga**
- **Clickup**

Languages

- **Spanish**
 - ◆ Level / Native
- **English**
 - ◆ Level / Intermediate

Experience

Tu Primera Chamba | Leader Backend Developer - Software Architect - DevOps

Period: 2024 – Present

Languages: C#, Typescript

Tools: GitHub Actions, Docker, WebSockets, PostgreSQL, Firebase, Consul, RabbitMQ, Seq

Frameworks: ASP.NET, Entity Framework, Ocelot, React, Next.js

Project Description:

"Tu Primera Chamba" is a comprehensive platform designed to facilitate job searching and recruitment management, focusing on connecting companies, recruiters, and freelancers. The platform includes robust features such as user management, job posting and search functionalities, real-time messaging, instant notifications, and AI-driven services for profile optimization and content validation. The primary objective is to create an efficient and secure environment that helps users find their first job or new opportunities while ensuring reliable interactions and high-quality content.

Responsibilities:

- **Microservices Architecture Design:** As the Lead Developer, I spearheaded the design and implementation of a microservices architecture, ensuring that each component—such as user management, job search and posting, messaging, notifications, and AI services—was independently scalable and maintainable. This design allows for the individual services to be developed, deployed, and scaled independently, facilitating rapid updates and feature enhancements.
- **User Management Implementation:** I implemented user management features that include user registration and login via OAuth providers (Firebase), role-based access control (RBAC), and account verification processes. This ensures a secure and user-friendly experience, allowing users to manage their profiles easily.
- **Job Posting and Search Development:** Developed functionalities for job posting and searching, enabling users to create job listings and search for opportunities using advanced filters. This enhances usability and connects job seekers with potential employers efficiently.
- **Monitoring and Observability:** Integrated monitoring and observability tools, utilizing OpenTelemetry for performance metrics collection and distributed tracing. This allows for proactive identification of performance bottlenecks and enhances system reliability.
- **Database Management:** Implemented PostgreSQL as the primary database solution for managing relational data across multiple microservices, ensuring data integrity and facilitating complex queries.

Beverage Distribution System | Leader Backend Developer - Software Architect - DevOps

Period: 2024 – 2024

Languages: C#

Tools: PNPM - GitHub Actions - Semantic Release - Husky

Frameworks: ASP.NET - Dapper

Project Description:

As a customer, I own a beverage distribution company dealing with brands like Pepsi, Pepsi Black, Guarana, Pacenia, Chicha, and Huari. I required a system to manage my business, enabling order reception and delivery to various destinations using trucks and vans. The application must be a REST API that manages vehicle availability, order placements, and customer notifications regarding order status.

Responsibilities:

- As the Software Architect, I designed a layered architecture to implement different abstractions, creating an optimal development environment. I based the design on "Clean Architecture" principles, developing a functional version of Fluent Validation using a Builder pattern for syntactic consistency.
- I addressed the requirement for multiple data sources (e.g., JSON files and databases) by integrating a Unit Of Work pattern to handle relationships by ID across tables, employing various design patterns like Abstract Factory, Repository pattern, and applying SOLID principles such as Dependency Inversion and Open/Closed Principle.
- As the Lead Backend Developer, I guided my team through implementations and architecture adherence, becoming a technical reference for best practices.
- As the DevOps, I configured the repository and continuous integration models using Husky, GitHub Actions, and Semantic Release, providing constant progress reports.
- This project was completed during the Programming 6 course in my 6th semester at university, meeting all requirements and delivering a high-quality software product.

Super Python Bros | Software Architect - Developer - DevOps

Period: 2024 – 2024

Languages: Python

Tools: PNPM - GitHub Actions - Semantic Release - Husky - Pylint - Black - EditorConfig

Frameworks: Pygame - Pytest

Project Management: Taiga

Version Control: Git - GitHub

Project: The Super Python Bros Project was a project done in my 5th semester of my period at the university in charge of the subject of Software Development 5.

This project is made to be a game based on the classic "Super Mario Bros", where the goal is to recreate this game giving it a Bolivian identity generating the same characteristics as the original game.

Description:

- As a Software Architect, I provided the team with the High-Level Architecture and the Low-Level Architecture of the whole game, to have the best software that can be scalable and flexible to future levels and/or new requirements.
- As DevOps of my team, I helped the team to define all the conventions and rules and to implement them inside the linter and formatter configurations of our repository.
- As DevOps of my team, I implement a continuous integration model along with all the previous rules and unit tests, to ensure the best software quality and prevent future bugs or release failures.
- As DevOps of my team, I implemented all the husky configurations to prevent together with the CI/CD model the push of code that does not follow all the conventions set by the team and also that it does not compile.
- As DevOps of my team, I implemented all the configuration of semantic release which is a tool that allows us to auto-generate documentation on all the features and bugs of our application, plus we auto-version our application according to the format of these.
- As a Developer in my team I implemented and developed in-game functionalities such as the hero's movement, the change of scenes between the game, the collide management of all the sprites, the collision of the hero with the blocks, the implementation of the key control of both the keyboard and the controller, etc.

2048 | Lead - Front End Developer - DevOps

Period: 2024 – 2024

Languages: Haskell

Tools: Cabal - Stack - EditorConfig - Nix - Netlify

Frameworks: Miso - QuickCheck

Project Management: Trello

Version Control: Git - GitHub

Project: The 2048 project was a group team assignment that was done in the 5th semester of my college term in the Programming 5 course.

This project was made to be a game based on the classic 2048 on the web, where the goal was to create an attractive UI and above all the most important thing that is only made with Haskell and with a purely functional paradigm.

Description:

- As Team Lead, I helped to define the priority order of the user stories, I was in charge of reviewing each of the PRs delivered by the team, I modularized and was in charge of controlling and managing all the functionalities of our application so that the code could be scalable and understandable for any programmer, I was in constant communication with each member to give incentive and encouragement to deliver the best software quality possible.
- As Team Lead was a reference with the whole team for any technical questions or support with a task, helping everyone was able to ensure the highest speed in our sprint and at the same time guarantee the highest quality of the software.

- As DevOps of my team, I implemented a solution so that files built and transpiled by Miso to javascript, HTML, and CSS can be hosted and put on the web together with Netlify.
- As a Developer in my team, I was able to implement functionalities such as generating random numbers when starting the game, being able to generate a new game, and with this calculating and updating the game's best score, etc.

Llama Gamer | Full Stack Developer - DevOps

Period: 2023 – 2023

Languages: Typescript

Databases: PostgreSQL

ORMs: Prisma

Tools: Docker - PNPM - Vite - GitHub Actions - Swagger - Semantic Release - Husky - ESLint - Prettier - Editor Config - Railway

Frameworks: React - NestJs - Tailwind CSS - Jest

Project Management: Taiga

Version Control: Git - GitHub

Project: The llama gamer project was a group team assignment that was done in the 4th semester of my university period in the Software Development 4 course. This project was made to be an e-commerce on the web that handled different cities and currency exchange rates, where the goal was to offer products related to technology and the gaming world, and also had to implement a protected administrator view for registration and editing of these same products for the website.

Description:

- As DevOps of my team, I was in charge of defining and implementing all the conventions that the project was going to follow regarding the linter and formatter chosen by the team, always looking for the best development experience and best software quality.
- As DevOps of my team I was in charge of defining and implementing the model of continuous integration and continuous deployment of our application, defining a different deployment for the testing stage, Staging, the Production, this model contains all the conventions and configurations previously defined.
- As DevOps of my team, I implemented all the husky configurations to prevent together with the CI/CD model the push of code that does not follow all the conventions set by the team and also that it does not compile.
- As DevOps of my team, I implemented all the configuration of semantic release which is a tool that allows us to auto-generate documentation on all the features and bugs of our application, plus we auto-version our application according to the format of these.
- As a Backend Developer, I was in charge of all the implementation of JWT by roles of our server, which contains a token and a refresh token that was used in the front end to handle requests to the server and also define the protected routes of both our endpoints and our routes on our website.
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the server and also define the protected routes of both our end points and our routes on our website.

- As a Backend Developer, I was in charge of the connection of our services together with our ORM Prisma for the handling of the raw data and the prevention of any possible SQL Injection attack and also the generation of the whole model according to the previous implementation of our database model.
- As Front End Developer I was in charge of the modularization of folders and files of our app, following the principles of clean architecture, I was able to demarcate an order which allowed us to have an extensively understandable and flexible management for the development, generating the best possible development experience.
- As Front End Developer I was in charge of the development of all the user-facing parts of our application, starting with the login, the home page, the carousels, the cart page, and the checkout page, I contributed design to the whole part of the generation of the customer invoice.
- As Front End Developer I was in charge of separating and controlling all the protected paths of our application, to prevent attacks or that a user can enter pages that should not, such as the administrator page, etc.
- As a Front End Developer implement the persistent login and persistent car of our application and manage and provide the team with functions with which they can interact and manipulate that data through the sessions.

Desktop Library | Full Stack Developer - DevOps

Period: 2023 – 2023

Languages: Typescript - Python

Databases: PostgreSQL

ORMs: Prisma

Tools: Docker - NPM - PIP - Turbo - Vite - GitHub Actions - Swagger - ESLint - Prettier - EditorConfig

Frameworks: React - Electron - NestJS - Tailwind CSS - Jest

Project Management: Trello

Version Control: Git - GitHub

Project: The library project was a group team assignment that was done in the 4th semester of my college term in the Programming 4 course. This project was developed to be a local desktop distributed application made in Electron, where the goal was to provide an application that can be managed by different branches without an internet connection, where there was a certain time and specific time of day where the functionality was had where all those different branches can send their sales and purchases and synchronize with the main stock of the entire company.

Description:

- As DevOps of my team, I was in charge of defining the entire development environment of our repository.
- As DevOps of my team, I was in charge of implementing and configuring all the conventions defined by my team together with the linters and formatters established.
- As a DevOps member of my team, I was in charge of implementing and configuring an entire continuous integration model to ensure the highest quality of software for our application.

- As a Backend Developer, I had to implement multiple endpoints of our library, considering that it manages users, books, loans, etc.
- As a Front End Developer, I was in charge of logging in to our application, achieving a persistent login, and validating it in the backend.
- As Front End Developer I was in charge of generating the entire skeleton of our application, joining all our routes through the sidebar and the home page.
- As a Front End Developer, I was able to develop a common reusable form that would generate all of our following forms simply by passing arguments without further code, this was useful since each endpoint of our application would generate a new form.
- As a Developer on my team, I generated the script and configuration of the cron jobs of the branches so that at the scheduled time and requested by the client, all of them connect and send the updated data of their branches to the main one and thus be able to manage a total tracking of books and so on.

Hermes | Lead - Full Stack Developer - DevOps

Period: 2023 – 2023

Languages: Typescript

Databases: PostgreSQL

Tools: Docker - NPM - Turbo - Vite - GitHub Actions - ESLint - Prettier - EditorConfig - Railway

Frameworks: React - NestJS - Tailwind CSS - Jest

Project Management: Taiga

Version Control: Git - GitHub

Project: The Hermes project was a group team assignment that was done in the 3rd semester of my college term in the Software Development 3 course.

This project was developed to be a web application where the objective was to provide a map with different functionality, such as marking blocking points, similar to the one integrated into Google Maps, this was done thanks to the MapBox API.

Description:

- As Team Lead, I implement and define all the file structures and conventions that the team should follow throughout the development process of our application.
- As Team Lead, I was a technical reference for the whole team, considering that in this application they worked all my course of Software Development 3 together, many still did not know and had not been able to work with the technologies defined, which is why this part I had to successfully fulfill a very important role.
- As Team Lead, I was in charge of reviewing every possible PR within our repository, thus ensuring and verifying that each PR delivered by the team follows and implements all the practices and conventions defined by the team at the beginning of this project.
- As DevOps, I deploy and configure the entire development environment for our application within a single repository so that when a command is made everything can run at the same time and developers don't have to worry about anything other than developing new features.
- As DevOps, I implement and configure all the rules that were defined by the team to both the linter and the formatter, to provide the best possible development experience among the team.

- As DevOps, I drove and configured the integration and deployment models with GitHubActions to ensure the highest possible software quality and at the same time generate our website within a web page hosted and configured by myself at Railway.
- As Backend Developer I declare the main modules along with finished examples so that the team has a guide and can continue the development of the same in the best possible way, helping and generating documentation for new developers to know these new technologies.
- As Frontend Developer, I was in charge of the development of multiple features, both the map generation, the loading screen, the search bar, the persistent login, the generation of markers for the application having three different ones, start marker, destination marker, visit marker to see about the location.

Kruskal Library | Lead - Developer

Period: 2023 – 2023

Languages: Java

Tools: Gradle

Frameworks: JUnit

Project Management: Trello

Version Control: Git - GitHub

Project: The Library of the Kruskal algorithm was a group team assignment that was done in the 3rd semester of my college term in the Programming 3 course.

This project was developed to be a public library in Gradle and Maven, where the goal is to publish it so that programmers who want to import it can generate both a Gradle and given this to be able to generate the Kruskal algorithm with generics.

Description:

- As Team Lead of my team, I was in charge of dividing all the user stories of our PB to all the members of our team, looking for the prioritization of the first ones before others.
- As Team Lead I was a reference to support my team if there was any complication with the generics and/or any query that may arise in the development stage.
- As Team Lead of my team I kept in constant contact with all my team members to inform them of our current status and what will be the next steps of the day to day.
- As a Developer in my team, I was in charge of connecting our application with Gradle and Maven, registering it, and publishing the first version of our library.
- As a Developer in my team, I was in charge of implementing all the interfaces that will follow both our graph and the Kruskal part of the algorithm.
- As a Developer I implemented and created the whole graph together with generics and TreeSets in our library.
- As a Developer, I was in charge of generating all the unit tests to test and guarantee the quality of our solutions and classes of our library.

Mikhuy | Developer

Period: 2022 – 2023

Languages: Dart

Databases: MongoDB

Tools: Firebase - Pub.dev

Frameworks: Flutter - Flutter Test

Project Management: Trello

Version Control: Git - GitHub

Project: The Mikhuy project was born as part of a hackathon in search of recycling and care for the environment, being one of the first places this, Avina Foundation became the partner for its completion and launch of the first beta version.

This project was developed to be a mobile application where the objective would be the controlled sale of products with weeks to expire in supermarkets to prevent waste and generate offers.

Description:

- As a Developer in my team, I was in charge of researching and implementing shooters together with webhooks to validate and remove QRs that no longer expired in our application, all this is part of the management of product reservations in our application.
- As a Developer, I was in charge of generating validations within our login and launching error messages if any of these did not comply with the validations already defined.
- As a Developer, I was in charge of fixing multiple bugs in production to ensure the highest possible software quality.

Common Auth | Lead - Front End Developer - DevOps

Period: 2022 - 2022

Languages: Javascript

Databases: MongoDB

Tools: Firebase - NPM - Vite - GitLab CI - ESLint - Prettier

Frameworks: React - Tailwind CSS

Project Management: Trello

Version Control: Git - GitLab

Project: The Common Auth project was a group team assignment that was done in the 2nd semester of my college term in the Software Development 2 course.

This project was developed to be a web application where the goal is to generate a common means of authentication with OAuth for multiple applications that want to generate a login to their applications as easily as registering on our website.

Description:

- As a Team Leader, I was in charge of informing and supporting my team because it was the first application in the university where we used javascript and above all making web applications.
- As Team Leader, I was in charge of reviewing all the PRs of my team, informing and supporting them if for some reason a member could not complete their user story.
- As a DevOps developer, I did the connection and deployment of the whole application together with Firebase.
- As a DevOps developer, I created a Continuous Integration and Deployment model together with GitLab CI and Firebase, to be able to publish all our applications on the network.

- As a Developer of the team, I was in charge of implementing a CRUD with Firebase and the application to register new applications.
- As a Developer of the team I was in charge of implementing the token generation and configuration of the applications in our application, together with these I could generate the redirection for the login to our application and in a success to send the users to the page expected by our registered applications.
- As a Developer of the team, I was in charge of the generation of the whole skeleton and model of our app in search of a comfortable development together with the whole team.

Education

February, 2022 - Present

Commercial Software Engineering

Salesiana University of Bolivia, Cochabamba, Bolivia

→ Completing each semester with high academic standards.

February, 2009 - November 2021

High School Diploma

Colegio España, Cochabamba, Bolivia

→ Completed education with high academic standards.

Certifications & Achievements

- **ICPC South America/South Finals Participant (2022-2023, 2024-2025):** Successfully qualified and participated in the prestigious ICPC regional finals for South America/South, demonstrating advanced problem-solving and programming skills.
- **Academic Excellence Certificates:** Earned academic excellence certificates in the 2nd, 3rd, and 5th semesters of my university program, recognizing my outstanding academic performance.
- **Cocha Somos Innovación Programming Championship (2022, 2023):** Competed in two consecutive editions of the "Campeonato de Programación Cocha Somos Innovación," showcasing my competitive programming abilities.
- **Mentorship at Jala University (2023):** Acted as a mentor in the **Mentor U** program, guiding students in the subjects of **Databases 2** and **Programming 2** during the second academic period of 2023, helping them strengthen their foundational knowledge.