Hugo Lazaro Cruz de la Torre

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Senior Full Stack Developer with over 10 years of experience building web and mobile applications for industries like airlines, e-commerce, and healthcare. I lead full-stack projects, delivering intuitive, secure, and scalable systems using modern technologies such as **React**, **Node.js**, **TypeScript, GraphQL**, and **AWS**. Skilled in backend development with **NestJS**, **PostgreSQL**, and **Docker**.

PROFESSIONAL EXPERIENCE

IAG/IAGGBS   **Barcelona, Spain**
Lead Full Stack Developer   *April 2025 – present*

- Developed a high-performance chat application leveraging Next.js 15 and React 19, integrating the Vercel AI SDK to enable real-time, AI-driven interactions, improving user engagement by 30%.
- Designed and implemented a scalable backend architecture using Python FastAPI and Postgres, optimizing API response times by 25% through efficient query design and caching strategies.
- Created and maintained comprehensive unit and end-to-end tests for frontend and backend, ensuring robust integrations across the chat application and AWS services.
- Integrated AWS event-driven services to enhance the chat application's scalability and real-time capabilities, streamlining notification delivery.
- Developed the Notifications integration for the whole DPX.
- Utilized modern frontend tools, including TypeScript, Shadcn, React Query, and Tailwind CSS, to build a responsive and intuitive user interface.
- Tools and technologies: Next.js 15, React 19, TypeScript, Vercel AI SDK, Python, FastAPI, Postgres, AWS, Shadcn, React Query, Tailwind CSS.

IBERIA   **Barcelona, Spain**
Lead Full Stack Developer   *November 2023 – March 2025*

- Introduction of visual and performance improvements in the TAM tool. I optimized the loading time by 40% by completely restructuring the architecture and replacing the libraries used.
- Developed the AMOS integration update.
- Created and updated unit tests and E2E for TAM, BRS, AMOS and GATEWAY integrations. Priority backends for IBERIA's DPX (Digital Platform eXperience).
- Develop TAM integration with AWS DPX event bridge.
- Developed the Notifications integration for the whole DPX.
- I used the following tools: React 18 + Nestjs(CQRS) + Typescript + Tailwind CSS/Shadcn, React-Hook-Form, Tanstack/React-Query, GraphQL + Cypress + Docker + Kafka + AWS.

Call Me Mobility   **Barcelona, Spain**
Lead Full Stack Developer   *June 2024 - October 2024*

- Led the development of a fully functional car rental platform for [Call Me Mobility](#), focusing on delivering a seamless and user-friendly experience across all devices.
- We designed the platform with a strong emphasis on user experience (UX), ensuring that both the booking process and navigation were intuitive and easy to use for customers of all technology levels.
- We implemented a dynamic and efficient booking system that allows users to select flexible rental options (daily, weekly or monthly) tailored to their needs. The system supports real-time availability checks and customized pricing models.
- Secure payment gateway integration, ensuring that all transactions are handled with encryption and in compliance with industry standards, providing users with multiple payment methods.
- Use the following tools: Next.js 14/15, TypeScript, Shadcn, Auth.js, React-Hook-Form, Stripe, Prisma, PostgreSQL and Vercel.

Sivasdescalzo   **Barcelona, Spain**
FrontEnd Developver   *February 2023 - October 2023*

- Worked on the continuous improvement and update of the e-commerce platform for [SVD](#) , enhancing both performance and user experience. Focused on optimizing front-end components and improving the overall functionality of the website.
- Updated and refactored the website's architecture, ensuring seamless integration with the backend.
- Improved the user interface with responsive design and enhanced interactions, leveraging modern frameworks and tools.
- Use the following tools: Next.js 12/13, Typescript, Tailwind CSS, Formik, React-Cookie, GraphQL(Apollo Client – Graph Codegen) and Cypress.

2IG   **Barcelona, Spain**
Full Stack Developer   *April 2023 - July 2023*

- Collaborated with Institutional Investment Group (2IG) on improving and updating Aviato, their investment management software. The project focused on enhancing functionality, optimizing performance, and ensuring data security for sensitive financial operations.
- Developed frontend features with a user-centered design, using Chakra UI and Apollo GraphQL to facilitate data requests and ensure smooth user interactions.
- Updated backend functionalities to improve data processing and enhance security protocols, integrating JSON Web Tokens for authentication and using AWS SDK for cloud-based operations.
- Worked with PostgreSQL and TypeORM to manage and optimize data storage, ensuring reliability and scalability for large data sets.
- Use the following tools: Next.js 12, TypeScript, Chakra UI, Apollo GraphQL, Node.js, TypeORM, Express, PostgreSQL, Jsonwebtoken, AWS SDK.

SITA   **Barcelona, Spain**
Full Stack Developer   *August 2022 - February 2023*

- Contributing to the development of the Mission Control web and mobile application. This application is designed to enhance flight control operations at airports and onboard airplanes, ensuring efficient communication and real-time data access for flight personnel. Currently used by several of the world's most important airlines.
- Developed user-friendly interfaces ensuring an intuitive experience for both airport and in-flight staff. Designed responsive layouts ensuring compatibility across various devices and screen sizes for optimal user experience.
- Implemented TypeScript to enhance code quality and maintainability, allowing for robust type-checking and reducing runtime errors for both the frontend and the backend.
- Graph API integration with Microsoft Teams, enabling seamless communication and collaboration between flight control teams, improving operational efficiency.
- Use the following tools: React 16, TypeScript, Material UI, HTML5, CSS3, Node.js, Express, MongoDB and Graph API with Microsoft Teams.

ACHS   *La Habana*, **Cuba**
Full Stack Developer   *January 2022 - May 2022*

- Participated in the development of a Digital Admission web/app for ACHS (Chilean Association of Safety), aimed at streamlining the healthcare admission process in Chile. The project involved building both web and mobile platforms to handle patient admissions efficiently.We designed the platform with a strong emphasis on user experience (UX), ensuring that both the booking process and navigation were intuitive and easy to use for customers of all technology levels.
- Designed and implemented frontend features to ensure a user-friendly interface for patients and healthcare staff.
- Contributed to the backend development, focusing on secure data handling and integrating with healthcare systems.
- Worked on optimizing the database and backend architecture to ensure scalability and reliability of the platform.
- Use the following tools: React 16, Material UI, HTML5, CSS 3, Node.js, TypeScript, Express, Sequelize, Nest.js, .Net Core 6 and Sequelize.

PreconZ   **La Habana, Cuba**
Full Stack Developer   *May 2022 - August 2022*

- Worked on the development of a web and mobile aimed at managing projects and users. The application was designed to streamline project oversight and user management, with features tailored for tracking progress and maintaining user information.
- Developed responsive frontend interfaces to ensure a seamless experience across web and mobile platforms.
- Integrated Firebase for real-time data synchronization, user authentication, and secure storage solutions, ensuring smooth user management and data flow.
- Implemented project and user management functionalities, providing administrators with tools to oversee project progress and handle user accounts.
- Worked with the HubSpot platform to integrate customer account management, automating certain administrative tasks and improving overall user engagement.
- Use the following tools: React 18, TypeScript, Material UI, HTML5, CSS 3, Firebase (Authentication, Firestore, Storage, Realtime Database) and HubSpot for customer and user account management.

ACL   **La Habana, Cuba**
Lead Full Stack Developer   *January 2021 - December 2021*

- Contributing to the creation and maintenance of the Transport-Administration website, a tool designed for managing geofences to optimize transportation logistics.
- Developed and maintained the frontend interface using Angular 11, focusing on responsive design and user-friendly layout with Material-UI.
- Implemented Firebase for backend functionalities, managing data storage and retrieval to ensure efficient and reliable database management.
- Enhanced application performance and optimized geofencing functionalities to improve accuracy in transport tracking and monitoring.
- Use the following tools: Angular 11, Material-UI, HTML5, CSS3 and Firebase (database management).
- In addition to contributing to the development of the Common Health Coordination Portal, a web and mobile application designed to streamline health coordination processes in the Chilean health system.
- Implemented backend features and managed database interactions using Node.js, Express, and Sequelize, ensuring secure and efficient handling of sensitive health data.
- Provided frontend support with React 16, creating responsive and intuitive interfaces for healthcare professionals and patients.
- Developed a cohesive layout and design system with Material-UI, HTML5, and CSS3 to enhance usability across devices and improve the user experience.
- Use the following tools: React 16, Material-UI, HTML5, CSS3, Node.js, Express, Sequelize (database management)

NTSprint   **Barcelona, Spain**
FrontEnd Developver   *June 2021 - September 2021*

- Worked on the update and optimization of the [Growing Brilliant](#) website. Focused on enhancing the user experience through various improvements.
- Implemented a fresh, user-friendly design with Material UI, ensuring consistent styling and responsive layouts.
- Reduced load times by optimizing React 16 components and refining asset management, resulting in smoother navigation and improved overall speed.
- Refactored frontend code to increase readability, making it easier for future developers to maintain and extend functionality.
- Use the following tools: Next.js 12/13, Typescript, Tailwind CSS, Formik, React-Cookie, GraphQL(Apollo Client – Graph Codegen) and Cypress.

Autovenn   **La Habana, Cuba**
Full Stack Developer   *January 2020 - December 2020*

- Worked as a programmer and designer on two Swiss projects: the [Autoven](#) website and the Mealdeals mobile app. These roles involved both frontend and backend development, using a range of technologies to build scalable and user-friendly applications
- Autovenn Website: Developed and maintained this web application with a focus on efficient data handling and responsive design. Utilized Angular 9 for frontend architecture, with Express and MongoDB for backend and database management. Frontend styling was achieved with Bootstrap 4, HTML5, and CSS3 to ensure a modern and accessible user interface..
- Mealdeals App: Built the app using Ionic-Angular to deliver a cross-platform experience. Continued using Express and MongoDB for backend and database solutions, with Bootstrap 4 and CSS3 for UI consistency across devices. Additionally, performed testing and emulation using Android Studio to validate functionality and UX on mobile platforms.
- This period provided extensive experience with Angular, database management, and responsive design principles, enhancing my skills in both web and mobile environments..

SMG   **La Habana, Cuba**
Full Stack Developer   *January 2019 - December 2019*

- Contributed to the development and maintenance of *Marketplace Boilerplate*, a Swiss-based web application designed to provide a flexible, scalable foundation for online marketplaces, enabling efficient product listings, transactions, and user interactions.
- Developed and maintained backend functionality using Express and MongoDB, optimizing data handling and ensuring secure storage and retrieval for a seamless marketplace experience.
- Established a cohesive design system using Bootstrap 4, HTML5, and CSS3 to create an intuitive interface that promoted ease of navigation and accessibility for users.

NTSprint   **La Habana, Cuba**
FrontEnd Developver   *January 2018 - December 2018*

- Contributed in the development of *CTI (Computer Telephony Integration)*, a web application designed to streamline communication processes and integrate telephony systems with business applications..
- Developed the application backend using ASP.NET MVC 5 and C#, leveraging Razor syntax to create dynamic and responsive web pages tailored to user needs.
- Implemented real-time communication features utilizing WebSocket protocol with the SignalR library, enhancing user interaction and responsiveness within the application.
- Managed database interactions and optimized data storage solutions with SQL Server, ensuring efficient retrieval and manipulation of call records and related data.
- Designed the application's layout and user interface using GoJS, HTML5, and CSS3, focusing on creating an intuitive and engaging user experience that aligns with client requirements.
- Use the following tools: GoJS, HTML5, CSS3, ASP.NET MVC 5, C#, SignalR (WebSocket), SQL Server.

Tecnomatica   **La Habana, Cuba**
Full Stack Developer   *September 2017 - December 2020*

- Served as a software developer in the applications department; focusing on the maintenance and enhancement of the Fixed Assets Module of the SISCONT 5 desktop application, along with other key modules.
- Fixed Assets Module: Maintained and improved the Fixed Assets Module of the SISCONT 5 desktop application utilizing Genexus 10 for programming, generating code in C#. Enhanced the module's design and layout with Ignia/HTML, while effectively managing the database with SQL Server to ensure optimal performance.
- XML Export/Import Algorithm: Developed a secure encryption algorithm for the export/import of XML data to and from the General Module of SISCONT 5. Employed microsoft.NET 3.5 as the framework and C# for programming to ensure data integrity and security during transactions.
- Purchasing Module Development: Conducted web development for the Purchasing Module of SISCONT 5 using Genexus 15 for programming, generating code to C#. Implemented Ignia/HTML for the user interface design and layout, and utilized SQL Server for database management, enhancing the module's functionality and user experience.
- SISCONT 6 Web Development: Contributed to the development of SISCONT 6 using Angular 7 as the framework, incorporating Bootstrap for responsive frontend design and layout. Managed database interactions with SQL Server, ensuring a robust and scalable application architecture.
- Use the following tools: Genexus 10, Genexus 15, Angular 7, Ignia/HTML, Bootstrap, microsoft.NET 3.5, C#, SQL Server.

University of Holguin   **Holguin, Cuba**
Lead Full Stack Developer   *August 2014 - September 2017*

- He worked as a software developer in the Computer Science Department of the Faculty of Informatics-Mathematics, focusing on the development of web applications aimed at improving administrative processes and health monitoring. In addition, he taught classes on various programming and software engineering topics.
- Human Resources Control Application: Developed a comprehensive web application for Human Resources management using ASP.NET 3.5 Web Forms as the framework. Leveraged C# as the programming language for backend logic, integrating Oracle DB as the database management system to ensure efficient data handling and reporting for HR activities.
- Taxia Detection and Treatment Application: Designed and implemented a web application for the detection and treatment of Taxia, utilizing ASP.NET 3.5 MVC as the framework. Employed C# for backend development, integrated Oracle DB for robust data management, and utilized jQuery to enhance the user interface, providing dynamic features and optimizing the overall design for better user interaction.
- Instruction in Programming and Software Engineering: Delivered lectures and practical sessions on HTML programming, Software Engineering principles, and Data Structures, equipping students with essential skills for software development and effective problem-solving.
- Use the following tools: ASP.NET 3.5 Web Forms, HTML 5, ASP.NET 3.5 MVC, jQuery, C#, Oracle DB.

EDUCATION

UNIVERSITY OF ORIENTE   **Santiago de Cuba, Cuba**
Bachelor's Degree in Computer Science   *July 2014*

ADDITIONAL SKILLS

- Native in Spanish. Fluent in English.
- **Programming Languages**: C/C++/C#, PHP, SQL, JavaScript/TypeScript, Genexus,Java.
- **Frameworks**: ASP.Net, Ignia, Bootstrap, Material, Angular, Vite(React), Ionic, Express, Strapi.js, Total, Symfony, Nest.js., Vue.Js, Next.Js, Swagger, React Native, React.
- **Other** : HTML, CSS, Git, GitLab, Bitbucked, AzureDevops, JQuery, Razor, Blazor, SQL Server, Sprint Boot, MongoDB, FireBase, MySQL, Sequelize, PostgresSQL, Jira, Jest, Docker, Docker-Compose, Kubernetes, Cassandra DB, SQLite, Cypress, GraphQL, CQRS, Kafka,Shadcn, Prisma, Drizzly, Mikro-ORM, Type-ORM, AWS, Vercel, CI/CD, Wix.

CONFERENCES AND COURSES

- NestJS Full Official Course, Official Site, 2024.
- Total Typescript Course by Matt Pocock, 2024.
- Epic React Course by Kent C. Dodds, 2024.
- Nextjs Full Official Course, Official Site, 2022, 2023, 2024.
- Introduction to Front-End Development, Meta, Coursera, 2023.
- React Query Official Course, UI.dev, 2023.
- Instagram Clone, React 18 (Hooks + React Router v6), Appdelante, 2022.
- ReactJs Hooks + API Rest with C# + Material UI, Udemy, 2021.
- Master Class: React + Typescript Web Development, Udemy, 2021.
- Docker Fundamentals: Images and Containers, Udemy, 2020.
- Angular 11/12 , Official Course, Official Site, 2020.
- Informática 2019, Santiago de Cuba, Cuba, May 2019.
- Node.JS Course, University of Informatics Sciences, Havana, Cuba, 2019.
- React.JS Course, University of Informatics Sciences, Havana, Cuba, 2019.
- International Fair of Technologies, Havana, Cuba, 2018.
- Angular 7 Course, Tecnomática, Havana, Cuba, 2017.
- Genexus 20167 Tecnomatica, Havana, Cuba, 2017.
- Mobile Apps 2017, Genexus, Tecnomatica, Havana, Cuba, 2017.
- Web Design 2017, Ignia-Genexus, Tecnomatica, Havana, Cuba, 2017.
- Mobile Application Philosophy, Tecnomática, Havana, Cuba, 2017
- UI/UX Actual Pattern, University of Informatics Sciences, Havana, Cuba, 2016.
- Conference on the Need to Learn to Program, University of Holguin, Holguin, Cuba, April 2016.
- MongoDB Course, University of Informatics Sciences, Havana, Cuba, 2016.
- Management Course, University of Holguin, Holguin, Cuba, 2016
- SQL Server 2016 Database, Desoft, Havana, Cuba, 2016.
- Conference on Applied Mathematics, University of Holguin, Holguin, Cuba, May 2015.

- Lecture on the Relationship Between Mathematics and Programming, University of Holguin, Holguin, Cuba, October 2015.
- Probability and Statistics, University of Holguin, Holguin, Cuba, 2015.
- Mathematics Applied to Economics, University of Holguin, Holguin, Cuba, 2015.
- Linear Programming, University of Holguin, Holguin, Cuba, 2015.
- Higher Didactics, University of Holguin, Holguin, Cuba, 2015.
- Web Application Development Using Symfony, Universidad of Orient, Santiago de Cuba, Cuba, 2014.

Media

- [GitHub Profile](), with my projects, contributions and much more.
- [X Profile](), with my ideas, thoughts and concerns about the world of programming.