

# Juan Villegas

## Full Stack Developer

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### Skills

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- Programming Languages: JavaScript | TypeScript | PHP | Visual Basic | Python
- Tecnologías: Node.js | Next.js | NestJS | Express.js | Laravel | Django | WordPress | WooCommerce | Prisma | Airtable | Firebase
- Databases: MongoDB | MySQL
- Version Control: Git | GitHub
- Project Organization: Trello | ClickUp
- Languages: Spanish (Native) | English (A1/A2)

### Experiences

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#### Time Scheduler (Next.js)

Barquisimeto, Venezuela

SAE (API REST Project)

06/2024 – 10/2025

- Development of 7 CRUD modules for the management of Institutional Schedules, Academic Cycles, Courses, Subjects, Subject-Teacher-Teacher-Classroom Relationship, with the aim of feeding an academic planning system.
- Implementation of an advanced algorithm for the generation of academic schedules, which considers institutional restrictions, faculty availability, weekly workload of subjects and limitations by section. The algorithm ensures the creation of consistent, overlap-free, and optimized schedules for all sections of each course.
- Development of a schedule visualization module, including details by section, with functionalities for the generation of reports in Excel and PDF formats, facilitating the management and analysis of academic planning.

#### Automated Academic Management (Airtable)

Colombia

Integrated Academic Management System – Airtable

12/2024 – 01/2025

- Design and implementation of a comprehensive academic planning and monitoring solution using Airtable as a central database system.
- Structuring of multiple interrelated tables: Instructors, Programs and Competencies, Environments, Training Programming, Tasks and Alerts, and Academic/Disciplinary News.
- Configuration of automations for the validation of programming conflicts, generation of visual alerts and sending automatic notifications by email aimed at instructors, spokespersons and trainees.
- Accurate management of teaching workload, with automatic weekly and monthly calculations, and alerts for excess or deficiency of assignment.
- Design of custom views (Calendar, Kanban, Individual Boards, Public Student Views), dynamic filters, and secure access links.
- OneDrive integration for automatic and renamed storage of meeting minutes.
- Automation of follow-up of academic and disciplinary measures, with control of deadlines, citations and compliance statuses.
- Implementation of periodic backup strategies, ensuring the integrity and availability of information through automated exports and external backups.
- Benefits obtained: centralization of academic processes, significant reduction of manual work, improvement in institutional communication and greater traceability of critical events.

## Full Stack Developer AuditaPro – Financial and Internal Audit Management System

Guatemala

*AuditaPro – Audit System with Django and Docker*

**12/2024 – 05/2025**

- Design and development of Audita, a robust web application for the comprehensive management of financial and internal audits, aimed at firms and independent professionals.
- Backend development with Django 5.0.6 and Python 3.9, and frontend with HTML5, CSS3, JavaScript and Bootstrap 5, achieving an adaptive and intuitive interface.
- Docker and Docker Compose integration for containerization of the development and production environment.
- Database management with SQLite in development and PostgreSQL in production, ensuring scalability and performance.
- Implementation of a multi-level user system, with granular access control and hierarchical activation/deactivation logic for audit teams.
- Custom middleware development for automatic expiration control of demo accounts.
- Implementation of an advanced document management system with dynamic templates for Word and Excel files, professional nomenclature, and automatic content processing.
- Creation of internal financial analysis tools: Horizontal and vertical analysis, automated calculation of materiality and risk, and generation of summary sheets.
- Dynamic form design and a hierarchical navigation architecture based on the user's role.
- Deployment via CI/CD with GitHub Actions, optimizing the flow of system updates.
- Solving key technical challenges: automatic processing of Office documents, complex authorization based on hierarchical relationships, and improving performance through caching and query optimization.

## Full Stack Developer – PCRACING

Madrid, Spain

*Digital Transformation of E-commerce and After-Sales Service*

**Dec/2024 – Present**

- Development of a comprehensive system for managing incidents, warranties and returns using Next.js and Prisma, optimizing after-sales and communication with customers.
- Implementation of an API for stock synchronization with external suppliers, automating the updating of catalog, prices and availability, and dynamically integrating it with WooCommerce.
- Creation of a web store for Portugal in WordPress, including content translation, dedicated domain configuration and visual adaptation for the local market.
- Development and integration of an automated WhatsApp bot, in charge of informing users about the status of their orders proactively.
- Incorporation of a new courier company to the shipping ecosystem, integrating its service and using Stripe as a system for storing and consulting transactional information.
- Development of a shipment management system based on microservices, designed to integrate with multiple courier companies.
  - Backend deployed with Node.js, TypeScript, and Express.js, using MongoDB with Mongoose as the primary ORM.
  - Architecture built on advanced patterns such as Factory, with RESTful design and scalability orientation.
  - Development of a dynamic API for the creation, tracking and analysis of shipments, including automated generation of tags and reports by date.
  - Robust data validation and error handling, preventing duplicates and improving information quality.
  - Implementation of an extensible architecture that allows new logistics providers to be added without altering the core logic.
  - Fully dockerized project with configuration files for flexible deployment in production environments.
  - Version control with Git, maintaining clean and collaborative traceability.

## Education

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### Telematics Engineering

Barquisimeto, Venezuela

*Lisandro Alvarado Central Western University (10th semester)*

**2018 - 2025**

- Relevant Courses Taken: Full Web Development with HTML5, CSS3, JS AJAX PHP and MySQL | Getting Started with Amazon Web Services (AWS) | SQL Databases | Fundamentals of Programming | Responsive Web Design | CCNAV7 Module I, II & III |

## Projects

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### Backend Development Leader – ISP Management Platform

*Academic Project (Node.js, React Native, Express.js and MongoDB)*

- Leading a team of four backend developers for the development of comprehensive management software for Rocket.Net (fictitious ISP), using Scrum methodology and technologies such as React, Node.js and PostgreSQL. Implementation of user roles, integration of APIs, and generation of statistics and reports for business decision-making.

### Multilingual Portfolio with Administrative Panel"

*Personal Project*

- Developed and implemented a visually appealing and professional portfolio using Next.js with TypeScript, including multilingual routing to provide an accessible experience to international users.
- Use of MongoDB as the main database and configuration of a custom mail system to facilitate direct contact from the page.
- Creation of a private administrative panel that allows editing and management of content, with persistence in the database and dynamic updating of the frontend through a shared global context system.
- Responsive and intuitive design implemented with Tailwind CSS, optimizing the visual experience on both desktop and mobile devices.
- The entire system was containerized with Docker and deployed on a personal VPS, guaranteeing independence, flexibility and control over the production environment.
- A subdomain of its own was set up to reinforce the professional identity and facilitate access to the portfolio.

### PBX System Implementation with FreePBX, Docker and IAX Interconnection

*VoIP Communications Infrastructure over Dockerized VPS (Academic Project)*

- Design, configuration and deployment of a self-managed PBX system with FreePBX, fully containerized with Docker and hosted on a personal VPS, ensuring full control of the environment, high availability and scalability.
- Configuration of VoIP call routing exclusively over the internet, achieving successful international communication between countries without intermediaries or traditional infrastructure.
- Advanced settings of extensions, IAX trunks, and dialing rules, optimized for operational efficiency, network flexibility, and increased communications security.
- Integration of administrative tools for real-time monitoring, visualization of key metrics and detailed call logging, ensuring traceability and subsequent analysis.

### Real-Time Chat with Contact Management and Two-Way Communication

*Instant Messaging Platform with User Registration and Socket*

- Development of a real-time chat application focused on user-to-user interaction, with full functionalities for registration, authentication and management of active sessions.
- Implementation of a custom Socket.IO server with Express, which allows instant two-way communication between users and dynamic notifications in real time.
- Friend request system with automatic notifications when sent or accepted, and a control panel that allows you to see the online status of live contacts.
- Direct messaging between users with built-in emoticons and customization through profile avatars.
- Robust and scalable Next.js-based architecture for the frontend and a WebSockets-based backend, focused on performance, user experience, and extensibility.

### UpTask – Web Application for Task Management

*Slope Control Tool based on PHP and JavaScript*

- Development of a functional web application for the management of tasks by project, allowing users to create, visualize and organize their pending tasks in a simple way.

- User authentication through a login form with credential validation, allowing access to personalized environments.
- Backend implemented with PHP and visual base built with HTML, CSS, SCSS and Javascript, providing a friendly and responsive experience.

### DevWebUCLA – Academic Platform for Web Conferences and Workshops

*Web System for Educational Event Management with HTML, CSS, SCSS, PHP, JavaScript and PayPal*

- Development of a web platform aimed at the management of conferences and academic workshops, facilitating the access of face-to-face and virtual participants to the contents of the event.
- Implementation of key modules such as user authentication, interactive session scheduling and navigation organized by thematic areas.
- Construction of a modern and responsive interface using HTML5, CSS3, SCSS and JavaScript, with a backend in PHP.
- Integration of payment tools through PayPal, allowing registration and participation in restricted access events.
- Demo account setup with preset login, ideal for showing the functionality to testers or recruiters.
- Published project with polished visual environment and ready for academic or institutional use.

### Extra Experiences

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<b>Technical service in the areas of networks and IT</b>	<i>Barquisimeto, Venezuela</i>
Mega Infocenter, Lara	<b>02/2024 - 05/2024</b>

- Implementation of network infrastructure improvements throughout the venue.
- Corrective and preventive maintenance of computer devices.
- Software update in computer equipment.

<b>University Projects</b>	<i>Barquisimeto, Venezuela</i>
Lisandro Alvarado Central Western University, UCLA.	<b>2018 - 2024</b>

- Audits of computer equipment and evaluation of its performance and security.
- Verification and improvement of network points, including the implementation of wireless access points.
- Optimization of the performance of computer equipment.