# Santiago Salas Bolaños

## Systems engineer

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Bilingual Frontend Developer with 5 years of experience creating web applications optimized for performance, scalability and user experience, guaranteeing efficient and high-impact solutions.

Throughout my career, I have worked on developing applications from scratch and on ongoing projects, actively participating in the negotiation and definition of requirements with both Spanish- and English-speaking clients. I have held meetings in English with Native Americans and professionals from various countries, ensuring effective communication in all phases of development, from initial planning to product evolution.

I have also been part of teams with evolving software, quickly adapting to its structure and contributing to its continuous improvement, ensuring solid architecture, high performance and ease of maintenance in products for different industries. My learning ability has allowed me to change between different projects and technologies according to business needs, adopting new tools and methodologies quickly. Additionally, I have stayed at the forefront of current trends, boosting my productivity and optimizing workflows with the strategic use of tools based on artificial intelligence.

I have collaborated on projects for high-level companies and startups, developing solutions used by government entities, global technology companies and internationally recognized organizations. In addition, I have worked in an interdisciplinary manner with design, backend, marketing and other teams, ensuring fluid integration between the different areas and aligning technical objectives with business strategies. I have also led the development of key products, assuming technical responsibilities and ensuring the implementation of scalable and efficient solutions.

Among my achievements are the creation of applications capable of handling large volumes of data with real-time updates, managing complex interactions with advanced visual interfaces without compromising the fluidity or efficiency of the system. Likewise, I have integrated artificial intelligence tools for image, voice and text processing, improving the automation and optimization of processes.

I specialize in React and its ecosystem, applying solid development principles, software architecture and design patterns. My approach combines object-oriented and functional programming to ensure clean, modular and maintainable code. Additionally, I contribute to the growth of high-performance teams through mentoring, technical leadership, and continuous improvement strategies.

## EXPERIENCE

### 57 Blocks— *May, 2024 – Present*

57 Blocks is a software development firm with more than 20 years of experience creating digital products for startups and large companies globally.  Specialized in building applications, artificial intelligence and Web3, they have launched more than 60 products since 2018, collaborating in sectors such as DeFi, FinTech, AdTech, AgTech and HealthTech. His team has worked on more than 57 startups and alongside some of the largest companies in the world to scale high-impact technology products.

- Developed the website and ROI calculation application for Presidium Solutions, creating an attractive and optimized interface to attract clients. The website not only functioned as an effective sales page, but also improved the company's marketing solutions by implementing SEO strategies to increase visibility and attract organic traffic. The integrated application allowed you to view key metrics through interactive graphs, generate PDF documents and automate email sending, optimizing customer conversion and financial decision making.
- I contributed to the creation of the website for Music City GP, an event linked to IndyCar, developing key modules in WordPress to improve the user experience and visibility of the event, facilitating access to information and ticket sales.
- I worked on the evolution of the Presidium Solutions mobile application, implementing new functionalities for an already operational and income-generating tool. My ability to adapt allowed me to improve the application without compromising its stability or usability.
- Currently, I am developing an intelligent system for project management and planning with AI, designed to optimize the creation and management of requirements in any type of project. The platform seeks to facilitate the generation of time estimates, the calculation of risks and the structuring of detailed steps for project execution. In addition, it is designed to integrate with productivity and collaborative work tools, automatic text transcription systems with AI and online meeting platforms, with the aim of improving team communication and alignment.

**Technologies**: Next.js, React, TypeScript, Redux, Tailwind, API Rest, GraphQL, Jest, Testing Library, Firebase, Wordpress, Flutter, Figma

### LinkedAI — *November, 2022 – February, 2024*

LinkedAI is the world's fastest platform for creating and curating training data for artificial intelligence and machine learning models, with a focus on computer vision and natural language processing. Its technology enables advanced annotation of graphical data with high precision, optimizing the performance of AI models through automated labeling, AI-assisted review, and bias reduction. With an expert team in data organization and structuring, LinkedIn provides scalable and efficient solutions, guaranteeing the generation of high-quality image datasets in record times, improving the reliability and impact of AI in various industries.

- I proposed and implemented improvements in the architecture and development flows, optimizing the organization and standardization of the code and structures to improve the maintainability of the project.
- I improved the quality and performance of the system through refactoring, optimizing functions, reducing code complexity and ensuring its scalability.

- I developed advanced modules for image visualization and processing, using complex HTML elements, with filters and search and sorting options to speed up data review.
- I integrated AI tools for automatic image labeling and review, significantly reducing processing time and improving data quality.
- I implemented unit and integration tests, increasing system stability and reducing errors in production.

**Technologies**: React, JavaScript, Redux, Material UI, API Rest, GraphQL, Jest, Testing Library, AWS.

### Colombian Geological Service (SGC) — *March, 2020 – November, 2021*

The Colombian Geological Service (SGC) is an entity attached to the Ministry of Mines and Energy of the Government of Colombia, dedicated to geoscientific and nuclear research. Its mission is to generate and disseminate knowledge about natural resources, geological dynamics and risk management, contributing to the security, development and sustainability of the country. Among its key functions are the monitoring of geological threats, the evaluation of subsurface resources and the integration of technologies for risk management.

**Earthquake and Volcano Viewer (Cataloged as the best in Latin America)**
- I developed from scratch the best SGC Earthquake and Volcano Viewer, allowing real-time monitoring of geological phenomena through interactive maps with multiple layers of information. In addition, I integrated seismic and volcanic data with detailed visualization in real time, incorporating graphs, tables, images and text reports, facilitating the analysis of geological activity and disaster prevention.
- I implemented dynamic maps with multiple layers of information, integrating seismic and volcanic activity data with real-time updates.
- I developed detailed visualization of each earthquake and volcano, showing key data through graphs and data tables.
- Managed large volumes of historical data, optimizing its processing to ensure fast response times without compromising performance.
- Ensured efficient concurrency for multiple users, improving system scalability and avoiding crashes or crashes in massive data queries.
- Optimize website performance and geological viewers, improving loading speed and integration of graphic components without affecting system stability.
- I led the migration of the styles code, organizing the visual structure of the project to improve its maintainability and scalability.

**Seismic Activity Catalog (Platform for researchers and government entities)**
- I developed a seismic activity cataloging system, an advanced library with historical records of earthquakes and volcanoes, handling even larger volumes of data than in the viewer.
- Design an optimized interface for accessing, editing and filtering information, facilitating the search and analysis of data for researchers, government entities and risk management organizations.

**SGC Website**
- I collaborated in the development and optimization of different modules of the SGC website, ensuring a responsive and accessible experience for all users.

**Technologies**: React, JavaScript, Material UI, Sass, Redux, API Rest, GitLab.

## TECHNICAL SKILLS
- **Frontend:** React, Next.js, Astro, TypeScript, JavaScript
- **Global Status:** Redux, Context API, React Query
- **Layout and Styles:** HTML, CSS, Sass, Tailwind CSS, Material UI, Bootstrap
- **Charts and Visualizations:** Three.js, Leaflet Maps, Chart.js, ApexCharts.js
- **Backend y API:** REST, GraphQL, Axios, Firebase (Firestore, Auth, Functions, Storage)
- **Testing:** There it is, Testing Library
- **Mobile and CMS:** Flutter, WordPress
- **Cloud & DevOps:** AWS (S3, Route53, CloudFront, IAM), Netlify, Vercel, CI/CD

## SOFT SKILLS
**Effective communication | Teamwork | Troubleshooting | Leadership | Continuous learning**

## LANGUAGES
**Spanish (Native), English (B2).**

## EDUCATION
**Marian University –** Pasto, Colombia. **Systems engineer,** *2019. (Honorable Mention)*
**Cambridge Academy –** Pasto, Colombia. **English level B2** *(APPROPRIATE* - British Council*). 2023. (Meritorious Degree)*
***Now** – English immersion program focused on fluency and effective communication. Course in progress (Daily Practice).*