

Juan Sebastián Escobar Vega

Full-Stack Web Developer | Mechanical Engineer

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Profile

Experienced full-stack developer with a background in Mechanical Engineering and over four years in the software industry. Specialized in React and Next.js, with strong skills in modern architectures, API integration, real-time systems, and DevOps using Docker and Linux. Proven ability to lead technical projects, design collaborative platforms, and develop embedded interfaces in multi-disciplinary contexts. Bilingual in English and Spanish.

Professional Experience

Color Metta

Cali, Colombia

Founder and Technical Director

Oct 2022 – Present

- Developed custom web applications using React, Next.js, Zustand, and Tailwind CSS.
- Designed real-time collaborative features with Socket.IO and MongoDB.
- Led DevOps setup using Docker and CapRover on self-managed Linux servers.

Imperial Studio

Cali, Colombia

Full Stack Developer

Jun 2022 – Oct 2023

- Built dashboards integrating large-scale APIs and real-time data.
- Created administrative tools for managing rooms and monitoring team KPIs.

Universidad del Valle

Cali, Colombia

Research Assistant / Consultant

Mar 2016 – Jan 2022

- Developed graphical interfaces in MATLAB for mechanical/acoustic instrument control using VGA ports on Windows.
- Built finite element models in ANSYS and implemented radiation models in MATLAB using the wave equation.
- Researched carbon-fiber manufacturing procedures and prototyped external fixators for bone injuries.
- Authored technical proposals related to maritime electromobility for grant applications (MGA, PFAN).

Other Roles (Engineering)

Various

Mechanical Design and Project Engineer

2011 – 2019

- Designed mechanical components and systems for industrial clients.
- Led project planning, budgeting, and coordination in multidisciplinary environments.
- Produced manufacturing drawings for drone-related projects using 3D CAD.

Education

Universidad del Valle, Colombia

M.Sc. in Mechanical Engineering

2016 – 2018

B.Sc. in Mechanical Engineering

2006 – 2014

Technical Skills

- **Languages:** JavaScript, TypeScript, Python
- **Frontend:** React, Next.js, Tailwind CSS, Zustand, Framer Motion, ReactPdf, ECharts, ChadCn
- **Backend:** Node.js, Express, MongoDB, PostgreSQL, Markdown
- **Real-Time and Collaboration:** Yjs, y-websocket, Socket.IO, WebRTC
- **DevOps:** Docker, CapRover, Linux, Git, Puppeteer
- **Tools:** VSCode, ChatGPT, Unity, MATLAB, ANSYS, Comsol Multiphysics

Courses and Certifications

- Software Architecture and Design of Modern Large-Scale Systems
- Next.js: The Complete Guide
- React: The Complete Guide
- MongoDB: The Complete Developer's Guide
- Design Patterns for JavaScript and Node.js
- JavaScript: The Complete Guide
- Web3 and Blockchain Fundamentals

Languages

- Spanish — Native
- English — Fluent (C1)