



MARCO ESCALONA

PRODUCT ENGINEER & CREATIVE TECHNOLOGIST

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PROFESSIONAL SUMMARY

British-Mexican Senior Product Engineer specializing in Real-Time Systems and 3D Interactive Web Experiences. Proven track record of architecting scalable Serverless platforms (React/TypeScript) and developing immersive WebGL environments. Native English speaker (EF SET C2) seeking remote roles where advanced engineering meets creative design to deliver high-impact digital products.

TECHNICAL SKILLS

Frontend Core:

React, TypeScript, JavaScript (ES6+), Tailwind CSS, Vite, HTML5/CSS3.

3D & Interactive:

Three.js, WebGL, Canvas API, Custom Physics, Procedural Rendering.

Cloud & Data

Firebase (Serverless SPA), REST APIs, CI/CD, Python, SQL, Real-time Sync.

Audio and Video:

Adobe Suit, Ableton live, Pro tools, Cubase, Da vinci resolve.

LANGUAGES

English & Spanish:
Native

Catalan, Italian
B2

EDUCATION

UEM

Computer Systems Engineering (Completed) – Mexico

Universidad Panamericana

Bachelor's Degree – Music & Innovation (Completed) – Mexico

UAM

Physics (In Progress) – Mexico.

CERTIFICATIONS

- EF SET C2 English Proficiency
- IBM Full Stack Software Developer
- Google Digital Marketing & E-Commerce
- Full Stack EBAC
- IBM Machine Learning With Python.
- IBM Python For Data Science, AI & Development.
- TEC DE MONTERREY Self-centered Artificial Intelligence human.

PROFESSIONAL EXPERIENCE

Lead Software Engineer & Creative Technologist

Berta Von Glümer / Aug 2023 - Present

Tech Stack: React, TypeScript, Firebase (Firestore, Auth, Storage), Three.js, WebGL, Tailwind CSS, Vite.

Primary Role: Systems Engineering

- *Architected and deployed a Serverless SPA ecosystem (React/Firebase) serving 200+ weekly active users, implementing real-time synchronization that eliminated traditional backend costs and reduced latency.*
- *Engineered EBVG-Hoot, a real-time multiplayer platform, utilizing Firestore onSnapshot for millisecond-level state sync and developing a custom latency-based scoring algorithm.*
- *Developed interactive 3D WebGL experiences (Cosmic Explorer, Art Studio) using Three.js, implementing procedural textures and custom physics via raycasting to optimize browser performance.*
- *Structured application logic to support dynamic content rendering and interactive learning modules.*
- *Managed structured datasets using SQL and spreadsheet-based systems to optimize academic reporting processes.*
- *Built internal CRM and grading systems, streamlining administrative workflows for academic staff through modular React components and optimized SQL datasets .*

Secondary Role: Technology Educator

- *Delivered advanced programming instruction in English.*
- *Integrated logical problem-solving and algorithmic thinking into the curriculum.*

IT Systems Engineer

Cedros College / 2021-2022

- *Supported institutional digital infrastructure and internal academic systems.*
- *Assisted in implementing cybersecurity measures to protect sensitive institutional data.*
- *Delivered technical training to staff to improve software adoption and system efficiency.*

Systems Engineer

CONACULTA - Aug 2016 - Dec 2017

Tech Stack: Custom Software Solutions

- *Assisted in the design and development of customized software solutions for public cultural institutions.*
- *Participated in technical planning, testing, and debugging processes to ensure system reliability.*
- *Contributed to cross-functional digital projects within government environments.*

Systems Engineer

Getting Out / 2022-2023

Tech Stack: Python, SQL, REST APIs, Git, Internal Workflow Tools.

- Developed tailored software tools to improve operational efficiency and internal process automation.
- Optimized data handling workflows using structured database queries and system debugging practices.
- Contributed to system architecture planning and technical troubleshooting.

Audio Engineer (Remote)

Black Fox Productions / 2020 - Present

- Delivered audio production services for international clients.
- Managed digital production workflows across distributed teams.
- Also performed roles as a cameraman and lighting engineer, collaborating with major movie chains and dubbing artists in Mexico and Latin America

VOLUNTEER WORK

Animalitos Plateros (Plateros, Little Animals) | Volunteer

Mexico City

2018 - present

Actively contributes to a non-profit organization dedicated to finding homes for street animals, providing shelter and support until suitable families are found

PROJECTS

Hypercasual Games (Unity, C# & Typescript)

- Developed rapid prototypes and production-ready mobile games.
- Designed retention-focused gameplay loops and ad monetization systems.
- Optimized performance for Android deployment.

Educational Web Applications (React, TypeScript)

- Built modular platforms used by 100–200 students.
- Developed reusable UI components and scalable architecture.
- Deployed optimized builds via Netlify.

Non-Profit Donation Platform (React)

- Designed and developed a responsive fundraising web platform.
- Implemented REST API integration and secure form handling.