

Antonio Martínez Fernández

Full Stack Developer | Python, Angular, Node.js & React | Software Engineer

 antoniomartinezfernandez17@gmail.com  (34) 627-129-659  Portfolio  Github  Linkedin

PROFESSIONAL EXPERIENCE

Frontend developer (Angular & RxJS) | Metrica Sports - June 2025 - Present | Full-time

As a Frontend Developer, I design and implement high-performance, reactive interfaces for the Metrica Nexus product and cross-platform applications, taking end-to-end ownership of features in a fast-paced startup environment.

- Developed and maintained **frontend features** with Angular (v14) for the Metrica Nexus product.
- Took ownership of **end-to-end features**, collaborating with a diverse, international team in a fast-paced startup environment.
- Built **reactive and high-performance** interfaces using RxJS. Partnered with designers to improve **UX/UI** experiences.
- Worked on **cross-platform applications** with Electron and Ionic.

Full-Stack Developer (Python & Angular & FastAPI) | Bionet - October 2023 - June 2025 | Full time

Participate in all stages of software development for ROSITA2, an embedded system for bioreactors, developing both frontend and backend solutions while ensuring seamless integration with hardware.

- Development of **Rest APIs and microservices** using Python and FastAPI. Usage of Redis queues and events for fast and efficient microservices communication.
- Design and development of a touchscreen and desktop **application interface for real-time management** of bioreactors with **Angular v12-19**, Bootstrap and Neutralino. Successfully migrated all systems from Angular 12 to 19.
- **Software lead** for bSmart devices such as CT1 and bBreath4 obtaining **integrated backend-frontend solutions** and working closely with electronics teams for integrating low level hardware software. Led meetings for retrospective analysis and future planning based on requirements and user feedback.
- Contribute to **architecture planning** and decision-making for **system design**.
- Worked extensively with technologies such as **OPC UA** and **Asyncio**.
- Backend **unit** and **integration testing** with pytest and frontend with Karma and Jasmine. Hands-on physical prototype testing.

Lead Developer (Python & React & FastAPI & AWS) | Spotify Electron - May 2023 - Present | Freelance

As the owner and Lead Developer of an **open-source cross-platform music streaming application**, I have been at the forefront of replicating and enhancing Spotify's functionalities while incorporating unique user-requested features such as the ability to upload personal music.

- Led a global open-source team of 25+ contributors using **Agile** methodologies, managing Git/GitHub workflows, PRs, and issue tracking.
- Developed **REST APIs** using Python, FastAPI, and MongoDB, including JWT-based authentication.
- Designed a **scalable music streaming architecture** leveraging AWS (S3, CloudFront, Lambda) for storage, CDN, and serverless processing.
- Built a **cross-platform desktop application** with React, TypeScript, and Electron, featuring a Spotify-inspired UI.
- Implemented **Dockerized** environments, CI/CD pipelines with **GitHub Actions**, and **automated testing** with Jest, React Testing Library, and pytest.

Frontend Developer | Mayor Óptica - January 2023 - June 2023 | Freelance

- Led end-to-end website development **from concept to production deployment**.
- Designed the **UX/UI** to create a professional, user-centered digital experience aligned with brand identity.
- Built a responsive, performance-optimized frontend ensuring seamless cross-device compatibility.
- Managed **deployment, optimization, and launch**, delivering a fully operational production-ready website.

Full-Stack Developer (PHP & JavaScript) | ByProx - January 2022 - June 2022 | Internship

Developed the backend and frontend for a travel application structured around points of interest (POIs).

- Developed the organizational structure and navigation through countries, regions, cities, and points of interest using PHP.
- Data persistence using MySQL.
- Organized content graphically using HTML, CSS and JavaScript.

SKILLS

- Python
- Typescript
- React
- Angular
- FastAPI
- Node.js

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EDUCATION

Bachelor Degree's on Computer Science

- Software Engineering Specialization (2019-2023) **7.5/10 (3.3/4 GPA)**
- **Honors** in Software Architecture

[MongoDB Python Developer Path](#)

[EF SET English Certificate 88/100 \(C2 Proficient\)](#)

LANGUAGES

- **English:** Professional Working Proficiency (C1)
- **Spanish:** Native/Bilingual

PROJECTS

[adventjs-cli](#) - November 2025 - December 2025

Developed a command-line tool to streamline AdventJS challenge setup, allowing developers to focus on problem-solving. Features include:

- Automatic generation of TypeScript solution templates, problem Markdown, and Jest test files
- Pre-configured environment with TypeScript, Jest, ESLint, Prettier, debugging tools, and GitHub Actions CI
- Enhances productivity by automating repetitive setup tasks

[AdventJS 2024](#) - December 2024 - December 2025

Completed all 25 coding challenges of the [AdventJS 2024](#) event by [midudev](#), solving progressively harder problems in JavaScript and TypeScript (with some Python). Focused on algorithm design, problem-solving, and clean, testable code. Solutions are fully documented and automated where possible.

[Portfolio](#) - March 2023 - Present

Designed and developed a responsive portfolio using Astro, Tailwind CSS, JavaScript, and CSS to showcase not only my projects and skills, but also my personal style, approach, and professional identity. Includes sections for About Me, Technologies, Projects, and Contact, providing an authentic online presence that reflects who I am as a developer.