Antonio Martínez Fernández

Full-Stack Developer | Software Engineer

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PROFESSIONAL EXPERIENCE

Frontend developer (Angular & RxJS & Electron)

Metrica Sports - June 2025 - Present

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 for the Metrica Nexus product.
- Built **reactive and high-performance** interfaces using RxJS.
- Worked on **cross-platform applications** with Electron and Ionic.
- Took **ownership of end-to-end features**, collaborating with a diverse, **international team** in a **fast-paced startup environment**.

Full-Stack Developer (Python & Angular & FastAPI)

Bionet - November 2023 - June 2025

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 managment** of bioreactors with **Angular**, Bootrstrap and Neutralino.
- **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 i**ntegration testing** with pytest and frontend with Karma and Jasmine. Hands-on physical prototype testing.

Lead Developer and Owner

Spotify Electron - May 2023 - Present

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. My role encompasses leadership, development and automatization.

- 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 using Material-UI and Bootstrap.
- **Led a global open-source team of 25+ contributors** using **Agile** methodologies, managing Git/GitHub workflows, PRs, and issue tracking.
- Implemented **Dockerized** environments, CI/CD pipelines with **GitHub Actions**, and **automated testing** with Jest, React Testing Library, and pytest.

EDUCATION

Bachelor Degree's on Computer Science	**MongoDB Python Developer Path**	**EF SET English Certificate 88/100 (C2 Proficient)**
Software Engineering Specialization (2019-2023) **7.5/10 (3.3 GPA)**		

SKILLS

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

LANGUAGES

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