

Antonio Martínez Fernández

Full-Stack Developer | Software Engineer

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PROFESSIONAL EXPERIENCE

Full-Stack Developer (Python & Angular)

Bionet - November 2023 - Present

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.
- Design and development of a touchscreen and desktop application interface for real-time management of bioreactors with Angular, Bootstrap 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.
- Unit and integration tests with pytest as well as extensive testing with physical prototypes to ensure reliability and performance.

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.

- Build and maintain a FastAPI-based REST API with Python and MongoDB.
- Implement music streaming architecture and secure JWT authentication.
- Utilize AWS (S3, CloudFront, Lambda) for storage, content delivery, and serverless functions.
- Develop a cross-platform desktop app using React, TypeScript, and Electron.
- Design UI with Material-UI, Bootstrap, HTML, and CSS, inspired by Spotify's UI.
- Lead a global open-source team of 25+ contributors using Agile methodologies.
- Manage Git/GitHub, overseeing branches, PRs, and issue tracking.
- Use Docker for streamlined development and production environments.
- Automate CI/CD pipelines with GitHub Actions, ensuring code quality and testing.
- Implement end-to-end testing with React Testing Library, Jest, and pytest.

EDUCATION

Bachelor Degree's on Computer Science

Software Engineering Specialization
(2019-2023) **7.5/10 (3.3 GPA)**

MongoDB Python Developer Path

EF SET English Certificate 88/100 (C2 Proficient)

SKILLS

- | | | | | |
|-----------|------------------|-----------------|-------------|-------------------------|
| • Python | • Typescript | • React | • Angular | • Java |
| • FastAPI | • MongoDB | • Microservices | • Rest APIs | • Docker |
| • Linux | • Github Actions | • PostgreSQL | • Electron | • Software Architecture |

LANGUAGES

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