

Dídac Cayuela Dolcet

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Profile

Full-stack software engineer with strong data skills and hands-on experience shipping production systems across mobile, web, and backend. Skilled in Python and TypeScript, API and database design, and Docker-based deployment. Experienced working with wearable and sensor data (HRV, activity, fatigue) in clinical research contexts, collaborating closely with researchers and clinicians.

Professional Experience

ISGlobal (Barcelona Institute for Global Health)

Barcelona, Spain

Software Engineer

Feb 2025–Present

- Lead development of a digital health platform used in clinical research for HRV-based fatigue monitoring, activity tracking, and participant follow-up (mobile + web).
- Designed and implemented backend services and REST APIs for physiological and research data using FastAPI and PostgreSQL, with secure authentication and robust data models.
- Built ingestion and processing pipelines for wearable and external sensors (for example Garmin and pulse bands), including validation, quality checks, and reliable synchronization.
- Delivered clinician-friendly workflows and interactive visualizations to support review and decision-making in research settings.
- Deployed and operated the stack in Docker-based environments, improving reliability, maintainability, and release consistency across staging and production.

RGB Informàtica i Consulting

Lleida, Spain

Software Engineer

Feb 2024–Jan 2025

- Developed and customized Odoo ERP modules using Python and JavaScript, implementing PostgreSQL-backed business logic and integrations.
- Built workflow automations, UI components, and reporting features while following maintainable patterns (MVC) and secure development practices.

Education

Universitat Politècnica de Catalunya (UPC)

Barcelona, Spain

M.Sc. in Data Science

2025–Present

Universitat de Lleida (UdL)

Lleida, Spain

B.Sc. in Computer Science

2021–2025

Technical Skills

Languages: Python, TypeScript/JavaScript, SQL, Java, C/C++

Backend: FastAPI, REST, SQLAlchemy, PostgreSQL, Alembic, JWT/OAuth-based auth

Frontend: React Native (Expo), web UIs, data visualization

Cloud & DevOps: Docker, Git, Linux, AWS (EC2, S3, SES), object storage (S3/MinIO), CI/CD workflows

Applied: Wearables and sensor integrations, physiological time series, research-oriented product devel-

opment, LLM-assisted features

Languages

Catalan: Native

Spanish: Native

English: Advanced (C1)