

# Pablo Villena Ariza

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## EDUCATION

### Davante MEDAC

Remote, Spain

*HND in Multi-Platform Application Development (Spanish CFGS – EQF Level 5)*

*Sept 2024 – Jun 2026*

- Official 2,000-hour Ministry of Education-accredited programme covering databases, programming, development environments, interface development, data access, service/process programming, and mobile/multimedia development. Included a mandatory in-company work placement and a capstone business plan (self-conceived concept) covering market validity, target customer, financing, tax structure, and team organization under an Agile methodology.

## EXPERIENCE

### Full Stack Developer (Internship)

Mar 2026 – Jun 2026

*Master Distancia SAU*

*Remote, Spain*

- **Educational platform (360° tours)** – Built the complete backend (Express.js, migrated to TypeScript) with JWT authentication (short-lived access tokens, 7-day httpOnly refresh cookies), RBAC, cursor-paginated endpoints, and a full change-audit trail.
- Integrated MinIO for multipart file uploads with cleanup jobs, hardened the API with Zod validation, Helmet, and tiered rate limiting, and documented all endpoints with OpenAPI/Swagger (dev/stage only).
- Set up dev/stage/prod environments with multi-stage Docker builds and PM2 process management, with automated deploys via GitHub Actions and Coolify.
- On the frontend, handled client-side token expiration (requesting a new token on expiry) and built the audit history page end-to-end.
- **Oleotourism SPA** – Defined the complete design language (Tailwind brand theme, typography, reusable components) and ensured pixel-perfect fidelity to mockups. Reinforced a colleague's email module (Express + Nodemailer) with XSS protection, rate limiting, and automated confirmation emails sent to the user upon submission.
- Acted as branch integrator for the team, reviewing and merging pull requests across both codebases.

## PROJECTS

### Hydrolink | *Spring Boot, React Native (Expo), MQTT, Docker, TanStack Query*

2026

- Built a full-stack IoT irrigation platform from firmware to mobile app — ESP32 (PlatformIO) with Arduino library, Spring Boot REST API, and a React Native (Expo) frontend using TanStack Query.
- Implemented secure device provisioning and authentication via a per-device secret (Authorization header), with two-phase secret rotation over MQTT and RSA-signed (RS512) broker auth/ACL for NanoMQ.
- Device (area) management with images, naming, and location, plus configurable stations – renaming and role assignment (solenoid, sensor, etc.) – and manual control with countdown feedback.
- Built a per-device, per-day scheduling system with time windows (pin activation at specific times or relative to another pin, with overlap detection); user profile management with image, recovery codes, and password reset.

## TECHNICAL SKILLS

**Languages:** Java, TypeScript, JavaScript, SQL

**Backend:** Spring Boot, Spring Security, Spring Modulith, Express.js, Node.js, REST APIs, JWT, MQTT, MinIO, Flyway

**Frontend:** React.js, React Native, Expo, TailwindCSS, XState, Zod

**DevOps & Infra:** Docker, Docker Compose, GitHub Actions, Coolify, PM2, AWS Developer Associate (in progress), Digital Ocean, Linux

**Databases:** PostgreSQL, MySQL, Redis

**Other:** Git, GitHub, Arduino (C++), PlatformIO, Agile/Scrum

## CERTIFICATIONS

- **Spring Boot 4, Spring Framework 7: Beginner to Guru** – Udemy, Aug 2026
- **API Design in Node.js, v5** – Master.dev, Apr 2026
- **Intermediate React Native, v2** – Master.dev, Jun 2026
- **Java Masterclass 2025: 130+ Hours of Expert Lessons** – Udemy, Dec 2025