

Breogán Amoedo Fariña

Senior Mobile & Backend Engineer · Architect · Android / Kotlin · Java / Spring

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PROFILE

Senior software engineer and technical lead with **15+ years** across mobile and backend. Deep specialisation in **Android (Kotlin, Java)**, with substantial backend delivery in Java/Spring and Python. Focused on scalable architecture, clean modular design and systems that stay maintainable over years rather than quarters. Recurring focus on mobile payments — currently architect on a legacy modernisation of an Android smartPOS platform for BBVA, previously in-app ticketing for public transport. Works directly with product owners to turn product vision into feasible technical increments, and has delivered inside distributed international teams in English on cross-border infrastructure programmes. Shaped by eleven years running a software company — 15–20 products owned end to end, from client discovery and product design through architecture, build and release — across domains as unrelated as legal data management, sexual health, archaeology and commercial fishing, plus applied machine-learning research at Carnegie Mellon's Robotics Institute.

SELECTED HIGHLIGHTS

- Architect on the modernisation of a legacy Android smartPOS payment platform for **BBVA** — MVVM→MVI rearchitecture, domain-layer extraction, test coverage raised to **~80%**.
- Public-transport mobility platforms at **Indra** for Spain's smart cities programme and the **Cairo Monorail** — passenger-facing apps with in-app ticketing, delivered with an international team.
- Founded and ran a software company for **11 years** — **15–20 client products** owned across the full cycle (discovery → product design → architecture → build → production), including a multi-tenant platform deployed across **50–100 independent institutions**.
- Applied machine learning across client products — mainly **recommender systems**, plus pattern detection over longitudinal data — grounded in research at **Carnegie Mellon's Robotics Institute**; two peer-reviewed publications.

PROFESSIONAL EXPERIENCE

Minsait (BBVA Group)

Senior Mobile Developer — Architect / Technical Lead

Remote, Spain

Mar 2025 – Present

- Architect and de facto technical lead on the modernisation of a legacy Android smartPOS payment platform, within a 4-engineer mobile team, ahead of market launch.
- Led the rearchitecture from a poorly implemented MVVM codebase to MVI with a dedicated domain layer, extracting business logic that previously sat in the UI layer.
- Raised automated test coverage to **~80%** — the separation of concerns made the codebase meaningfully testable for the first time — and integrated the build and release flow into Jenkins CI/CD.
- Own payment backend and terminal API integration, and drive the technical decisions the team builds against.
- Work directly with product owners to translate product vision into technically feasible increments and realistic scope.

Indra Systems

Senior Mobile Developer

Remote, Spain

Feb 2023 – Sep 2024

- Android development within a 10-engineer mobile team building public-transport mobility solutions for Spain's smart cities programme, deployed across several Spanish cities.
- Contributed to the **Cairo Monorail** programme (Egypt) — one of the largest driverless mass-transit systems built to date — building the passenger-facing mobile app: trip planning, journey information and in-app ticket purchase.
- Delivered as part of a distributed international team, coordinating in English with engineering and client-side stakeholders across time zones.
- Implemented map-based features and real-time data processing pipelines for live vehicle and service data at city scale, integrating external APIs across the mobile-backend boundary.

Lapisoft Projects SL

Founder / Principal Engineer

A Coruña, Spain

Feb 2015 – Present

Software company delivering mobile and backend products. **15–20 client products** over eleven years, ranging from targeted technical consulting to full turnkey delivery. Own the entire cycle: client discovery, product and UX definition, front-end, back-end and architecture, development, release and long-term maintenance. Delivery teams of 2–3 engineers on 6–12 month cycles; **11 years** of continuous operation.

- Domain range: legal case and document management, sexual health, archaeology, commercial fishing, municipal utilities and clinical data. **Modelling an unfamiliar business quickly alongside non-technical domain experts is the core skill** — and the reason clients returned across a decade.

Multi-tenant data platform (health sector) — largest engagement

- Architected and delivered a multi-tenant patient-data platform deployed across **50–100 independent hospital IT environments** and still in production, managing 1,000+ records. Built in 2015 and evolved continuously since.
- Built data pipelines and ML-based pattern exploration over longitudinal records, giving research teams cohort-level analysis that did not previously exist.
- Owned GDPR compliance, data processing agreements and security review with dozens of independent IT departments — the critical path on every deployment.
- Ran requirements directly with domain experts and product stakeholders, translating operational workflow into technical decisions across a multi-year roadmap.

Decision-support tool — enteral nutrition prescribing

- Designed and built a rules-based calculation and decision-support system replacing manual work from manufacturer datasheets (2022). Peer-reviewed and published in *Nutrición Hospitalaria* (2023).

Operations and reporting platform — municipal water utility

- Delivered a data-acquisition and reporting platform for a water utility serving a population of **~400,000** — continuous ingestion from field systems, with automated regulatory reporting that previously required manual compilation.

PHRQL Inc.

Pittsburgh, USA (remote)

Mobile Architect & Developer

Jul 2012 – Dec 2023

- An **11-year retained engagement** with a US health-technology company, held continuously across multiple product generations while working remotely with a US-based team (concurrent with Lapisoft).
- Designed scalable mobile architectures for medical device data acquisition, and led integration of device data streams into consumer-facing health platforms.
- Developed and shipped multiple production applications to public app stores.

Carnegie Mellon University — Robotics Institute

Pittsburgh, USA

Research Scholar Associate, Human Sensing Lab

Jul 2011 – Aug 2013

- Applied machine learning to multimodal clinical data for automated detection of Parkinson's disease symptoms in uncontrolled home environments; published at IEEE EMBS.

PUBLICATIONS

Varela-Rey, I., Bandín-Vilar, E. J., Cantón-Blanco, A., Martinon-Torres, N., **Amoedo-Fariña, B.**, et al. (2023). NEmecum: A digital decision-support tool for prescription and dispensing of enteral nutrition and infant formula. *Nutrición Hospitalaria*, 40(5), 924–933.

Das, S., **Amoedo, B.**, De la Torre, F., Hodgins, J. (2012). Detecting Parkinson's symptoms in uncontrolled home environments: A multiple instance learning approach. *IEEE EMBS*.

TECHNICAL SKILLS

Mobile Android (Kotlin, Java), mobile architecture, offline-first design, app store delivery, POS and in-app payment integration

Backend & Data Java / Spring, Python (Django), RESTful API design, PostgreSQL, SQLite, ML pipelines — recommender systems, pattern detection on clinical and sensor data

Architecture & Practice Distributed and multi-tenant system design, modular architecture, clean code, code review, technical mentoring

Regulated Environments PCI-adjacent payment systems, personal and health data across institutional boundaries, GDPR, data processing agreements, third-party security review

Delivery & Product Git, CI/CD (GitHub Actions, GitLab, Jenkins), Agile/Scrum, client discovery, product definition, metric-driven iteration

EDUCATION

Universitat Oberta de Catalunya (UOC)

Graduado en Ingeniería de Tecnologías y Servicios de Telecomunicación

Barcelona, Spain

2020

Universidad de Vigo

Estudios en Ingeniería Superior de Telecomunicación

Vigo, Spain

2007

LANGUAGES & INTERESTS

Languages Spanish and Galician (native) · English (professional working proficiency) · Italian, Portuguese (basic)

Interests Music — guitar and piano