Marco Adrián Benítez García

Senior Software Engineer • .NET & Kotlin • Event-Driven (Kafka) • Cloud & IaC (AWS) • Full-Stack

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PROFESSIONAL SUMMARY

Senior Software Engineer, 10+ years building distributed systems and the infrastructure they run on. My core is .NET and Kafka-based event-driven architecture on multi-tenant cloud platforms, but I own the layers around it too: Terraform and Terragrunt across a 23-account AWS estate, Kubernetes delivery through Argo CD, observability in OpenTelemetry and Grafana. I work full-stack where the product needs it (Blazor/MudBlazor, Angular), and I'm not tied to one stack: my most recent service is Kotlin/Quarkus with an Angular frontend. I work in Domain-Driven Design and CQRS, and I stay with a system from the architecture decision through to the dashboards watching it in production. I use AI-assisted engineering heavily and deliberately, without lowering the bar on code quality.

CORE EXPERTISE

Backend & Architecture .NET 10 / .NET Core • C# • Kotlin + Quarkus (Java 21) • Microservices • DDD • CQRS • REST APIs • Anti-Corruption Layers

Messaging & Events Apache Kafka • Schema Registry • Confluent Cloud • Event-Driven Architecture • Azure Service Bus

Cloud & Infrastructure AWS (EKS, ECS, Aurora/RDS, DMS, ECR, Lambda, Secrets Manager) • Azure (Logic Apps, Functions, Service Bus, API Management) • **Terraform + Terragrunt** • Kubernetes • Helm • Argo CD (GitOps) • Docker

Systems & Runtime Linux since 2010, daily driver and production runtime: Debian/Ubuntu, Fedora, Arch • Shell scripting • Apache, SAMBA, mail, VPN and proxy services • Network infrastructure • Security distributions (Kali, Parrot)

Testing Architecture tests (ArchUnit) enforcing layer boundaries • Unit suites per architectural layer (xUnit, JUnit 5) • Component tests (bUnit, Vitest) • In-process API integration tests against real databases (Testcontainers) • End-to-end (Playwright) • Mocking and test-data builders (NSubstitute, MockK, AutoFixture) • Coverage reporting • Load testing (JMeter)

CI/CD & Quality Gates GitLab CI/CD (incl. shared org-wide templates, AWS OIDC federation) • Azure DevOps • Feature flags (progressive rollout) • SonarQube • Qodana • Reviewdog • Trivy • Code reviews

Observability OpenTelemetry • Grafana (dashboards as code) • Prometheus • Sentry

Frontend Blazor / MudBlazor • Angular 22 + TypeScript • Tailwind • JavaScript • HTML/CSS

Databases PostgreSQL (incl. Aurora) • SQL Server • MySQL • MongoDB • Cosmos DB • Redshift • Entity Framework • Hibernate/Panache • Flyway

PROFESSIONAL EXPERIENCE

Senior C# .NET Developer · beyonnex.io, Hamburg, Germany

June 2023 to Present (3 years) · fully remote from Spain

- Took a **new standalone service from empty repository to deployed and observable**: chose the stack (Kotlin/Quarkus + Angular 22), recorded the decisions as ADRs, provisioned Aurora PostgreSQL through Terragrunt, implemented OIDC auth, containerised both apps, and built the GitLab CI pipeline through Argo CD delivery onto EKS
- Led the **migration of the main product from SQL Server to PostgreSQL** using AWS DMS: selection rules, a verification script, recovery of secondary indexes lost in transfer, and regeneration of search views from migrations
- Own **infrastructure as code in Terraform + Terragrunt across a 23-account AWS estate**, provisioning Aurora clusters, application databases, team secrets and Confluent Cloud topic configuration across dev, QA and production
- Drove a **performance pass on the product's hot paths**, each change landed with tests: eliminated N+1 queries in search, batched per-page status lookups that were running per row, cached immutable per-user values behind unread counters, and scoped history loading to the visible window
- Keep the architecture enforced in code rather than in documents: **ArchUnit tests that fail the build when a layer reaches somewhere it shouldn't**, on top of unit, component and integration suites split by architectural layer
- Build complex **event-driven systems with Kafka**, including Schema Registry management and Anti-Corruption Layers that keep bounded contexts clean. Also **migrated a live topic off the anti-corruption layer onto the new platform** (dual-write, production verification, then contract), holding schema-registry compatibility throughout so no downstream consumer broke
- Sped up the shared **build-test-push pipeline** for the whole team: dependency caches keyed on lockfiles, shallow clones and parallelised toolchain installs, plus a code-freeze gate, stage reordering and timestamped job logs
- Wrote and shared the team's internal **AI engineering skills and project-context files**, turning AI-assisted development into a repeatable team practice rather than a personal habit
- Contribute to the **organisation-wide release-automation repository** used by multiple teams: release-branch merge-back, schema-registry update jobs, Argo CD deploy stages, and pipeline resource tuning
- Deliver **observability as code**: Grafana dashboards shipped via Helm with OpenTelemetry-backed panels, plus Sentry release tracking with SHA-stamped events and deploy markers
- Build the product's interfaces in **Blazor and MudBlazor** from Figma designs, and keep the codebase current on the latest .NET release line
- Lead technical onboarding for new colleagues; write the specifications, refinements and stakeholder briefings that shape multi-quarter initiatives

`Kotlin/Quarkus` `.NET 10` `C#` `Kafka` `DDD/CQRS` `Terraform/Terragrunt` `AWS EKS` `Argo CD` `PostgreSQL` `Angular` `Blazor` `GitLab CI/CD` `Grafana` `OpenTelemetry`

Senior .NET Developer · Delivery Management Lead · Hitachi Vantara, Madrid, Spain

January 2022 to June 2023 (1 year 6 months)

- Third-highest contributor of ~20 engineers on the **enterprise data-integration platform of a luxury retail group**: a fleet of Azure Logic App workflows, Functions and Web API services synchronising **Salesforce, SAP, Oracle Responsys, MuleSoft, SharePoint and an MRI property-management system**
- Built the **loyalty and rewards pipelines** end to end (reward allocation, guest points and customer segmentation) plus the daily sales and invoicing integrations feeding them
- Hardened the platform's reliability: cancellation-token timeouts, parameterised retry and delay, paginated leasing, and guarding run-state against partial failures so a mid-run error could not silently skip records
- Wrote the platform's supporting tooling: **mock API services** for a third-party integration bus so delivery could continue without the live endpoint, a **Service Bus dead-letter reprocessing tool** to replay poisoned messages, and an eCommerce gateway exposing SOAP services
- Moved enterprise workloads onto serverless Azure Logic Apps, provisioned the infrastructure with **Bicep**, and ran delivery through Azure DevOps pipelines and pull requests
- Kept a large **.NET Framework estate running while it migrated to .NET 6/7**, extending it without breaking the parts still in flight

`.NET Framework/.NET 7` `C#` `Azure Logic Apps` `Functions` `Service Bus` `Key Vault` `Cosmos DB` `Application Insights` `Bicep` `Azure DevOps` `Salesforce` `SAP` `Web API`

Senior .NET Developer · Servinform, Seville, Spain

September 2019 to January 2022 (2 years 5 months)

- Worked on the internal **cross-account team**, moving between client engagements rather than sitting on a single product
- Worked on the calculation platform a **major Spanish electricity utility** used to recover from a billing failure that left **150,000 customers without invoices for nine months**: **50-100 GB of consumption CSV a day** on **AWS EC2**, across Amazon Redshift and SQL Server, rebuilding the backlogged charges under regulatory scrutiny
- **Reduced that load from a full day to a couple of hours**, making it viable to run and debug daily: a purpose-built streaming CSV parser reusing a fixed memory span in place of a whole-file one, bulk loading instead of row-by-row inserts, and transformations pushed into the database (ETL → ELT)
- **Sole engineer** on a client portal for a Spanish real-estate servicer, delivered end to end: PDF invoice generation and download, plus the arrears communications sent to customers in default
- Delivered billing and reporting systems across the **Spanish utilities sector**: third-party grid access (ATR) pending-invoice reporting between distributors and retailers, an application for the regulated social electricity tariff, and inherited water and electricity systems
- Designed **ETL/ELT pipelines across SQL Server, MySQL, Redshift, PostgreSQL and MongoDB**, and handled deployments and environment configuration on Azure and AWS
- Integrated **SOAP/WCF services with a major Spanish electricity utility and a national mobile operator**, including an SMS provisioning API and a background worker service consuming utility callbacks
- Led web and desktop development on .NET Core 2-5 and .NET Framework, split into separate Domain, Data, Service and API layers; **carried projects through modernisation by multi-targeting .NET Framework 4.6 and .NET Core 3.1 from one codebase**
- Maintained an inherited portfolio of thirteen client codebases spanning .NET Framework 4.0 to .NET Core 3.1 (one of them 45 projects) plus a 100k-line legacy PHP platform and VB6 systems; adopted Blazor in early 2020, months after its release

`.NET Core 2-5` `.NET Framework` `MVC/Razor` `Entity Framework` `SOAP/WCF` `SQL Server` `MySQL` `PostgreSQL` `MongoDB` `Redshift` `Azure` `AWS EC2` `SonarQube` `Blazor`

Freelance Software Engineer · Self-Employed, Cádiz, Spain

May 2011 to April 2019 (8 years)

- Wrote and maintained bespoke applications in .NET Framework, MVC, Razor and Entity Framework for local businesses, administering the SQL Server and MySQL databases behind them
- Ran network security audits and penetration testing to identify and mitigate vulnerabilities in client infrastructure
- Ran the full infrastructure behind them: Linux services (Apache, SAMBA, FTP, mail, VPNs, proxies), Docker, backups and distributed file servers, keeping client networks up around the clock

`.NET Framework` `MVC/Razor` `Entity Framework` `SQL/MySQL` `Linux Administration` `Docker` `Network Security` `Penetration Testing`

Software Developer (Internship) · BMU Beratungsgesellschaft mbH, Northeim, Germany

March 2012 to June 2012 (4 months)

- Built a message-queue management application integrating with an IBM AS/400; optimised existing applications and localised software to Spanish and English

`C++` `MFC` `C#` `VB6` `VB.Net` `VBA` `SQL Server 2008 R2`

LANGUAGES & ADDITIONAL SKILLS

Languages Spanish: Native · English: Full Professional · German: Elementary

Additional Skills Python • Java • PHP • C/C++ • VB6/VBA • Figma • SCRUM/Agile • ETL/ELT • Penetration Testing • Network Infrastructure

EDUCATION

Degree in Computer Engineering · Universidad de Cádiz · 2013-2017

Higher Degree in Computer Application Development · I.E.S. Mar de Cádiz · 2010-2012