

PERSONAL INFORMATION

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POSITION

Lead software engineer

Responsibilities

full stack, full SDLC, design, architecture, automation, process improvement, cross-team practices

WORK EXPERIENCE

1 Sep 2024 – present

Main contributions

Lead software engineer (contract) @ PortIT (remote, UK)

Tackled lack of tests and concurrency issues in hard-to-maintain accounting service, so that ever since there have been no more concurrency-related bugs in it.

Assessed development process, established continuous improvement, proposed initial changes.

2022 – 30 Aug 2024

Main contributions

Lead software engineer @ Bardavon (remote, US)

Led the integration of two acquired companies' (Preventure and PeerWell) systems (APIs, auth, web, mobile) that enabled featuring prevention and recovery in a single product.

Co-owned "kiosk" android app from scratch to completion (while I learned kotlin and android development) and post-go-live monitoring and maintenance.

Contributed to prevention app (flutter on iOS and android), web and APIs (dotnet, while I learned its ecosystem) to provide more features, serving users and companies in AU, US, CA regions.

Volunteered for owning care portal and chat subsystem transferred from another team (with backend composed of serverless AWS lambdas in python, while I learned both tools) and did its go-live.

Promoted best practices (eg: simplified path from development to production) across teams and sponsored them for CIO approval.

2020-2022

Main contributions

Senior, then Lead software engineer @ PeerWell (remote, US)

Led establishing continuous delivery, BDD; co-led CICD implementation and migration to k8s with HA and zero-downtime deployment; those enabled continuous delivery and great async collaboration between PO and development team.

Sped up CICD pipeline from >1h to 18min through test isolation and parallelization.

Set up monitoring & alerting for early warning on unresponsive endpoints, error spikes.

Led improving development process and team ownership of patient- and corporate-facing mobile and web apps, and underlying APIs (internal and for corporate integration), serving thousands of patients and tens of companies.

2017-2020

Main contributions

Senior, then Principal software engineer @ Orwell Group (remote, UK)

Banking microservices overhaul: analyzed issues, presented plan to architect & engineering lead, led implementation; that turned a *ball of mud* into properly defined services, increased development velocity of new features and release frequency 2-fold and more than halved time-to-prod.

Led development of main product, customer, payments, party services and their migration to k8s.

2008-2017

Main contributions

From software engineer to team lead @ Acotel / Exceltia (Spain)

Built and came to lead development of financial integration platform from inception to completion, provided as a service and on-site for large companies.

Extended it successfully over the years, to process millions of payments, direct debits and cash management statements per day, with a focus on backwards compatibility and no-regression.

EDUCATION AND TRAINING

- 2017 **Scrum, PRINCE2 Foundation, ITIL Foundation Certificates**
Centro Tecnologías Avanzadas (Zaragoza, Spain)
- 2014 **Kanban methodology**
Agile Taste (Madrid, Spain)
- 2006 **Computer science engineer (Bachelor's degree)**
Centro Politécnico Superior (Zaragoza, Spain)

KEY ASPECTS

Principles and practices

Can do – any project, at any stage of development, with a holistic approach:

- Full-stack: server, client, mobile.
- Polyglot: experience in many languages and tools, can quickly deliver with any new one.

Transformational – proven record throughout my career:

- Led greenfield products and teams from their beginning.
- Brought order and efficiency to existing teams and codebases, even those having issues.
- Improved code, systems, processes.
- Delivered solutions solo or leading one or more teams.

Principled approach based on best practices and short iterations: KISS, BDD, TDD, test pyramid, clean code, clean architecture, functional programming, 12factor, agile, continuous improvement, continuous delivery, DDD, keep learning. Those ensure key aspects of software development are taken into account, avoid over-engineering and build quality into the process and product, prioritizing correctness first and then performance. Those helped me and the team in multiple instances, ie: services built at PeerWell following 12factor were easy to make highly-available and scalable; code done through TDD was easy to refactor; performance was improved by measuring, identifying bottlenecks and refactoring.

Product-focused work: helping the Product Owner (PO) scope, estimate and helping the team deliver user stories, MVPs, epics. Allowing fast initial delivery by reducing waste, allowing easy change and refinement in further iterations, without sacrificing maintainability. For instance, in grooming meetings and offline analysis at Bardavon, I was key on breaking down and estimating features for an android app (including sync with multiple bluetooth devices and cloud) to allow prioritization by PO.

User-focused mindset: from defining acceptance criteria for new features from diffuse requirements, to automating them as acceptance tests to ensure delivery with no regression or downtime. That is, top-down approach: start from what the user needs, how they'll test it, and then engineer the solution to provide it, as simple as possible. This has helped me across teams and companies, for instance when I fought over-engineered services at Orwell that placed a burden on releases and did little to meet the user needs; or when establishing BDD at PeerWell helped deliver consistently and with confidence.

Keen to do **spikes** or **PoCs** to try new technologies, **share knowledge** and **help teammates**. For instance: at PeerWell I did an integration with Athena test environment for EHR management by building an internal API wrapper (for encapsulation); I introduced acceptance tests (API) with cucumber at PeerWell, and E2E (UI) tests with playwright at Bardavon, documented just enough, explained the solutions and alternatives, and helped teammates adopt them.

PERSONAL SKILLS

Job skills and tech

Development: full-stack, FP and OO programming skills (javascript/typescript, nodejs, kotlin, java, python, dotnet...); strong BDD, TDD, SOLID, clean code, clean architecture background; k8s, docker; reactive, event-driven systems; react, redux, CSS.

Soft skills: led development teams (up to 10 people), promoted engineering dept (up to 5 teams) best practices (agile, devops). Great attention to detail, proactive. Enthusiast, motivated to learn.

Architecture: designed, maintained and owned complex, distributed systems and data stores; contract-driven (openapi) REST APIs; API gateway (apigee, AWS); serverless; monitoring & alerting...

CI/CD, IaC, automated testing and deployment: applied test pyramid (unit, integration, E2E tests), many testing frameworks, github actions, jenkins, terraform.

Databases: designed, owned SQL (maria/mysql, postgresql, oracle), NoSQL (mongo, key-value stores, etc) databases, used various ORM frameworks and automated database migration tools.

Other skills: accountability across SDLC (analysis, release planning, acceptance tests, change management, production deployment, integration protocols, documentation, traceability).

Extended experience in mission-critical, SOC2-audited systems and processes: medical (HIPAA PHI, EHR), financial (PSD2, OpenBanking, SWIFT MT, ISO 20022 PAIN, CAMT, DDEBIT standards).

Professional developer since 2006.

Languages

Spanish – Mother tongue

English – High level (understanding, speaking, writing)

ADDITIONAL INFORMATION

Remarkable projects and tech

PortIT:

- Conducted accounting service overhaul to tackle testing, concurrency and maintainability issues (java, postgresql).

Bardavon (SOC2 audited):

- Co-owned prevention kiosk app (kotlin, android) from inception to post-go-live, set up Sentry.
- Led new web dashboard combining data from task assessments and movement reports (ts, remix, playwright).
- Contributed to rebrand and redesign Preventure apps to Bardavon (web: remix, mobile: flutter).
- Contributed to prevention APIs (dotnet) and set up monitoring & alerting (google cloud).
- Owned Care Management Portal go-live after adoption from another team (lambdas, python, react).
- Contributed IaC: CICD (github actions), terraform, AWS, GCP.

PeerWell (SOC2 audited):

- Led medical programs v2 (web, API) - Content management and delivery (ts, node, cucumber, jest, docker, k8s, oauth2, jwt, mongo, express, nestjs, mongoose, jenkins).
- Built identity management - OAuth2 server (js, node, cucumber, docker, k8s, oauth2, jwt, mongo).
- Designed and delivered Partner API - Integrate corporate systems with PeerWell in an automated way (js, node, cucumber, mocha, docker, k8s, oauth2, jwt, mongodb, express, jenkins).
- Co-led Dashboard 2 - Web and API for partner users and care team (js, node, react, redux, mocha).
- Contributed IaC: CICD (jenkins), terraform, k8s (EKS), helm, AWS.

Orwell Group:

- Co-led API products and test automation (node, cucumber, REST, apigee, AWS API Gateway).
- Owned Registration, Product, Contract, Customer, AML and other microservices (k8s, REST, java, spring boot, node.js, mariadb, cassandra, kafka, apigee, cucumber).
- Owned Payments service for FPS, CHAPS, internal account transfers – common interface for payment initiation, indexing and searching (REST, solr, kafka, java, spring boot, storm, cucumber).
- Contributed IaC: CICD (jenkins), terraform, python, k8s (EKS), AWS.

Personal (<https://github.com/terracota-p>): a few playgrounds and personal projects.

