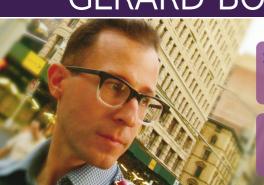
# GERARD BOSCH

#### Software Engineer Freelancer/Contractor



Enthusiast about Functional Programming, software engineering/craftsmanship, clean code, architectural/ design patterns and programming languages theory.

Good at identifying inefficiencies, diverse teams to solve challenging problems.

#### SUMMARY

[ 📒 👀 Please, read through my best practices and skills | 📜 Can also read the extended CV version ]

With a keen interest in Scala and other modern functional languages, my background is mostly about designing/implementing backend systems and APIs. Skilled in analyzing requirements and translating them into code. Focused on code readability, expressiveness, precision, conciseness, and correctness. Committed to continuous improvement &continuous refactor and code reuse as a mantra. Accidental-complexity fighter. Curious by nature, proactive and self-taught. I enjoy contributing to developer experience and building products. Like learning 😃, love crafting 🧡.

#### **EXPERIENCE**

#### Backend Software Engineer | Quarkus, Reactive

Tymit, 2024–2025

🎯 Authored an RFC with actionable proposals to align the current architecture with Clean Architecture™ & SOLID principles, with a special focus on the Interface Segregation (ISP) and Single Responsibility Principle (SRP), plus other enhancements.

- Engaged with the integrations team to support the migration of hundreds of thousands of customers into our system, while also developing new public-facing APIs to enable a new business model requiring first-party and third-party B2B backend integrations.
- Improved testing reliability by introducing Property-Based Testing and showcasing its principles to the backend team, ensuring more robust testing including edge-cases, generating thousands of test values.
- > Spearheaded API contract segregation into dedicated modules, enabling the publication of versioned API artifacts for seamless and efficient cross-service integration using Gradle, contributing to DX.
- Shared coding best practices and actively contributed to code reviews and BE discussions.

Stack: Quarkus, Microservices, Reactive Programming, AWS (ECS, DynamoDB, SQS, SNS, RDS), Liquibase,...

# Software Engineer | C++, MQL

Self employed, 2022-2023

- © Established my own company to provide software engineering services as a contractor.
- Algorithmic trading, research, design & implementation of a risk management system for loss control, as well as key metrics collection/reporting using DDD & Hexagonal arch.
- High level design of a multi-level affiliation system with referral fee distribution.
- Took a break to learn about finances, markets, investments and expand Fintech expertise.

#### Software Engineer | Spring Boot, Kotlin

N26 Bank, 2021-2022

- 🎯 Collaborated to streamlining the processing of banking fees with the goal of having a more centralized and clear domain boundaries for charging fees.
- Joined the Memberships team, which was in charge of designing and operating a new fee platform intended to be the new-standardized way of charging company-wide banking fees.
- This involved creating a dedicated microservice, repurposing and refactoring of existent ones (by DDD/CleanArch), along with APIs, as well as DB migrations.
- Deing a bank, testing and security were some of the most important and cared matters (pyramid testing, contract testing, regression, TDD,...).

Stack: Kotlin, Spring Boot, Microservices, EDA, Kafka, REST, Postgres, Datadog, ELK, AWS,...

## Senior Software Engineer | Spring Boot, Java

GFT IT Consulting, 2016–2021

- 🎯 Successfully delivered a large and complex regulatory banking project to provide external, permissionbased access to banking APIs, ensuring on-time completion. Then, was called to contribute to building a new bank architecture for high-concurrency from the acquired know-how.
- Banc Sabadell: Middleware Architecture (2020-2021) Redefine from scratch a whole new framework and development environment based on MsA, Spring Boot, API-First, Event Driven, DDD, Hexagonal, and using OKR project framework - Role: Software Engineer.
- Banc Sabadell: PSD2 & APIfication (2018-2020) Design & implement the APIs and requirements for the European PSD2 regulation; pioneering the API exposition for the Bank. Define and implement architectural components for the MsA. Mentoring and onboarding new members. Got established as the technical lead for the dev team - Role: Tech Lead
- Bankinter: Microservice Architecture (2017) Development of an architecture based on MsA and Spring, providing the pre-configured components: from security, tracing, audit, error handling to cryptography; enabling developers to easily get started.

## Software Engineer | Mobile development

ICG Software, 2015-2016

- Developed a new Android-native warehouse management app, featuring barcode scanning, offline operation, an object database with Realm, and integration with the in-house developed ERP.
- Successfully migrated a whole app for a franchise clothing store to native Windows Phone. Our client needed that we developed our Android app for Windows Phone, to deploy it globally on all their stores.

## Researcher/developer | Python

Al Research Institute IIIA-CSIC, 2012-2013

NEWMATICA: Intelligent and Energy Efficient Advanced System for Vacuum Waste Collection.

- Investigated Machine Learning algorithms based on Approximate Dynamic Programming (RL).
- Co-developed a waste collecting simulator to optimize operational plans, run simulations, collect data and process results.

## Presentations

2020 Functional Programming super-short intro

2018 A technical introduction to Blockchain technology

# **>>>** EDUCATION (to see more, view the

M.Sc. Open Source Software Eng.

# University of Lleida (ES) / VIA UC (DK), 2011

Master Thesis: Setting up and deployment of Sauron system for DNS system management at University of Lleida. Mobility internship program at VIA UC, Denmark.

# **CONTACT**

- S US/EU Worldwide remote
- in linkedin.com/in/gerard-bosch
  - 🖵 gerardbosch.xyz

#### PROGRAMMING LANG

Scala 3 \*\*\* Kotlin Java 23 Haskell Bash Python

### **TECHNOLOGIES**

Perl

- Spring Boot 
  Vavr PoAuth/JWT
- Cloud-Native / AWS 

  Docker
- 🛢 SQL 🛢 JOOQ 👬 API First & OpenAPI
  - <page-header> OpenShift 📤 Cloudflare
  - Devcontainers Testcontainers
    - Maven/Gradle/sbt GitVer

#### **TOOLS**

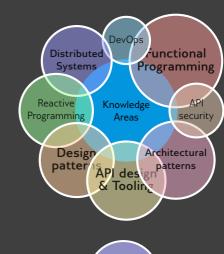
\/> Intellij / VSCode / vim :)

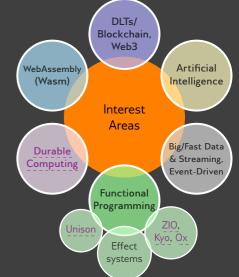
- GitHub Actions 😽 GitLab Cl 🧟 Jenkins

#### **METHODOLOGIES**

- Agile, OKR, SCRUM, Kanban
- TDD, Property-Based Testing, Mutation
- Domain Driven Design, Hexagonal, Clean Architecture
- API-First, OpenAPI, API Management, API Governance
- Microservices, Event-Driven Architecture
- SOLID, Design Patterns, Refactoring, eXtreme Programming

# IN GRAPHICS...





町文 source of this résumé is available at 📢 github.com/gerardbosch/resume · Built/Delivered by GH Actions/Cloudflare · Last updated: February 25, 2025