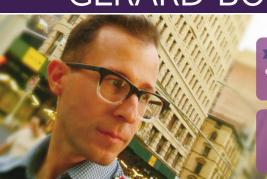
# GERARD BOSCH

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**



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, and conciseness. Committed to continuous improvement & continuous refactor and code reuse as a mantra. Accidental-complexity fighter. Curious by nature, proactive and self-taught. Like learning  $\ensuremath{\mathfrak{U}}$ , love crafting  $\ensuremath{\mathfrak{V}}$ .

#### >>> EXPERIENCE

## Software Engineer

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.

- Worked 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.
- 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

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

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.
- Being 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

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, I was called to contribute building a new bank architecture for high-concurrency, based on 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 so forth - 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 where I was 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

ICG Software, 2015-2016

Developed mobile apps for retail in Android and Windows Phone platforms from scratch.

# Researcher/developer

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/process results.

## **Presentations**

2020 Functional Programming super-short intro

2018 A technical introduction to Blockchain technology

## **DANK 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
- ✓ gerard.bosch@gmail.com
- in linkedin.com/in/gerard-bosch
  - gerardbosch.xyz
  - PROGRAMMING LANG

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

Python Perl

## **TECHNOLOGIES**

Spring Boot 
Vavr PoAuth/JWT

Cloud-Native / AWS 

Docker SQL 👬 API First & OpenAPI

🙈 OpenShift 📤 Cloudflare Devcontainers Testcontainers

ᅔ Maven/Gradle/sbt 🛭 🔯 JGitVer

#### **TOOLS**

</> Property-Based Testing (PBT)

</>
Mutation Testing

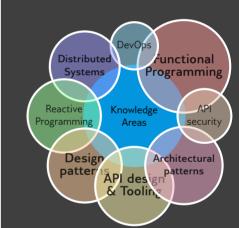
</> Intellij / VSCode / vim :)

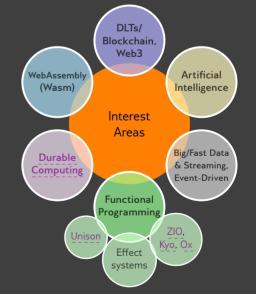
GitHub Actions 😾 GitLab Cl 🧟 Jenkins

🥇 Git 🔪 ZSH 🗩 Codestream

🜱 CI/CD 🐧 Linux 😻 Nix

IN GRAPHICS...





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