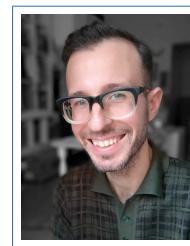


Gerard Bosch

Curriculum Vitae

📍 Barcelona, Spain
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Last updated: October 17, 2020

[Read the résumé version at <https://gerardbosch.github.io/resume>]

SUMMARY

Enthusiast about Functional Programming, software engineering/craftsmanship, clean code, architectural/design patterns and programming languages theory. Really concerned about the code itself, its readability and conciseness. Continuous improvement advocate. Accidental-complexity fighter. Like learning, love crafting. Proactive and autodidact.

My background is mostly about designing and implementing backend systems. I have good analysis skills and can break down requirements well and transform that into code.

PROFESSIONAL EXPERIENCE

2016

Senior Software Engineer, *GFT IT Consulting*, Lleida/Barcelona.

PROJECT HIGHLIGHTS (*most relevant projects only*):

- *Banc Sabadell*: Middleware Architecture (2020)
Role: Software Engineer
Start redefining from scratch a whole new framework and development environment based on MsA, Spring Boot, API First, Event Driven, DDD, Hexagonal and so forth.
 - *Banc Sabadell*: PSD2 & APIfication (2018–2020)
Role: Technical Leader (development team)
Design and implement the APIs for the European regulatory PSD2 project, leading the first approach to API exposition for the Banc Sabadell. I worked both on the API definition side and the Architecture side, defining and implementing architectural components for the Microservices Architecture where I was established as the technical lead for the development team until post-production.
 - *Bankinter*: Microservice architecture (2017)
Role: Developer
Worked in the development of an architecture for Bankinter based on MSA (Micro Services Architecture) with Java 8 and Spring Boot/Cloud. The Architecture provided the preconfigured components: from security, logging, audit,... to cryptography to allow developers to easily get started implementing small micro-services with not much Spring background required.
 - *Company presentation*: [A technical introduction to Blockchain technology](#).
- Keywords**: *Spring, Java, Vavr, FP, OpenShift, OpenAPI, API-First, Blockchain.*

2014
2016

Software Engineer, ICG Software, Torrefarrera, Lleida.

Senior developer in charge of mobile solutions for business domains.

- Architecting mobile applications for Android and Windows Phone platforms.
- Using the last cutting-edge technologies and libraries (Android data binding, Realm databases, Gson parser, Retrofit...).
- Architectural and design patterns implementation.

Keywords: Java, C#/.NET, Mobile apps, Android, Windows Phone, Realm.

2011
2013

Researcher/developer, Artificial Intelligence Research Institute (IIIA)-Spanish National Research Council (CSIC), Bellaterra.

Hired for the research project Innpacto-2011 (Spanish Science and Innovation Ministry), *NEWMATICA: Intelligent and Energy Efficient Advanced System for Vacuum Waste Collection* (IPT-2011-1496-310000). In collaboration with University of Lleida.

- Research on artificial intelligence algorithms and machine learning.
- Design and implementation of a simulator, modelling of real plants topology and operation. Experimentation running bulk simulations in a cluster and automatic processing and representation of results.
- Implementation of algorithms based on *Approximate Dynamic Programming* (Reinforcement Learning) in order to optimize operational plans of waste collecting plants.

Keywords: Approximate Dynamic Programming, ADP, Discrete Event Simulation, DES, Integer Linear Programming, ILP, modelling, data collection, AI, research, planning, optimization, Python.

2010
2011

Systems/comms operations, Information Systems and Communications Area, University of Lleida, Lleida.

- Setting up and deployment of Open-Exchange system (*Open Source*) covering the need of a corporative *Groupware* for the university staff. Set up, deployment, integration and maintenance of the service. Integration of the system with the corporative mobile phones.
- Setting up of an open source system for the management of name servers (DNS) in the university.
- Installation and management of GNU/Linux servers and virtual machines.

Keywords: Linux, virtualization, servers, DNS, networking, groupware

TECHNICAL SKILLS

Programming languages	Java, Scala, Kotlin, Bash, Haskell, Python, Perl.	Others	Git, Maven/Gradle/SBT, JGitVer, Docker, Open-Shift, L ^A T _E X, GNU utils, Cloud Computing.
Development methodologies	GoF design patterns, SOLID, Agile development, SCRUM, Domain-Driven-Design, Test-Driven Development (TDD).	Interest Areas	Functional Programming, Big/Fast Data & Streaming, DLTs & Blockchain, Artificial Intelligence.

COURSES AND CERTIFICATIONS

- 2020 **Big Data Foundations**, *IBM Cognitive Class*, [Course badge](#).
- 2020 **Hadoop Foundations**, *IBM Cognitive Class*, [Course badge](#).
- 2020 **Spark**, *IBM Cognitive Class*, [Course badge](#).
- 2020 **Big Data Foundations (level 2)**, *IBM Cognitive Class*, [Course badge](#).

- 2018 **Serverless Data Analysis with Google BigQuery and Cloud Dataflow**, Coursera, [Course accomplishment](#).
- 2018 **Leveraging Unstructured Data with Cloud Dataproc on Google Cloud Platform**, Coursera, [Course accomplishment](#).
- 2018 **Google Cloud Platform Big Data and Machine Learning Fundamentals**, Coursera, [Course accomplishment](#).

CONFERENCE ATTENDANCE

- 2019 **API Days**, Paris.
- 2018 **API Days**, Paris.
- 2018 **Ethereum Community Conference**, Paris.
- 2017 **JBcnConf**, Java & JVM Conference, Barcelona.

EDUCATION

- 2011 **Master in Open Source Software Engineering**, University of Lleida, Lleida / VIA University College (Denmark).
- 2011 **IT Engineering Higher Degree**, University of Lleida, Lleida / VIA University College (Denmark).
- 2005–2010 **IT Engineering Bachelor**, University of Lleida, Lleida.

FINAL DEGREE DISSERTATIONS

Master in Open Source Software Engineering

- title *Setting up and deployment of Sauron system for DNS system management at University of Lleida.*
- date 28–09–2011
- advisor Dr. Carles Mateu Piñol, Department of Computer Science and Industrial Engineering, University of Lleida, Lleida.
- description Setting up an open source system for the name servers (DNS) management of the university. Integration of several open source components together with an LDAP database into ISC BIND name server. Implementation, configuration, integration and deployment of that system in the university's production infrastructure.
- Qualified with honors.***
- document link <https://repositori.udl.cat/bitstream/handle/10459.1/45832/Bosch.pdf>
(Catalan + English full configuration guide)
- presentation (english) <http://www.slideshare.net/rockingerard/sauron-system-implementation-and-deployment-for-dns-management>

IT Engineering Bachelor

- title *Implementation of Golay codes in SAGE.*
- date 15–01–2010
- advisor Dr. Ramiro Moreno Chiral, Department of Mathematics, University of Lleida, Lleida.

description Implementation of a kind of channel error correcting codes (ECC) inside mathematical Open Source Software package SAGE, which is built up in Python and just previously had a generic implementation for linear codes.

Qualified with honors.

document link <https://repositori.udl.cat/bitstream/handle/10459.1/45751/Bosch.pdf>

presentation <http://www.slideshare.net/rockingerard/implementaci-dels-codis-de-golay-en-sage>

LANGUAGES

Catalan Mother tongue

Spanish Mother tongue

English B2 CEFR (Common European Framework of Reference)