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Profile

Highly experienced Software Engineer specialised on backend platforms with solid foundations on architecture, distributed computing and full software product lifecycle. I thrive working in agile environments where multi-faceted teams are common place and collaboration and good communication is a must.

After 10 years using *traditional* OOP techniques, over the last 7 years I became a **functional programmer advocate and mentor** after successfully put into production several services using FP principles while training other engineers.

In addition to my experience as software engineer, on the last 5 years I have grown my skillset around the DevOps mindset, whether it is about platforms, cloud providers or build tools as I believe a good engineer also needs to know well the runtime they are targeting.

Experience

Detailed

2020–2022 **Chief Architect**, *BankiFi.com*, Manchester (UK), Contractor

BankiFi Platform

Achievements:

- Leading development of the BankiFi Platform with full hands on deck.
- Productionizing initial prototype and taking it into market as MVP.
- Performing interviews and support during hiring of new engineers.
- Leading development of integration and customizations for other B2B partners.
- Re-designing the whole infrastructure in Azure and creating a templated setup that then was used in the SaaS offerings.
- Supervise the launching of mobile app *Incom€ing* and using it as a foundation for other white-label offerings.
- Improving delivery and productivity by moving all small coding repos into a single mono-repo while pushing for achieving full Continuous Delivery.
- Running training sessions and talks on various topics with the rest of the engineering team.

Tech Stack: *Scala, Akka HTTP, Cats Effect, Cats Tagless, FS2, Shapeless, Kamon, Kafka, Docker, Kubernetes, Helm, MongoDB, Azure, Pants, Python, Go*

2019–2020 **Technical Leader**, *WeJo.com*, Manchester (UK), Contractor

Product Adept

Achievements:

- Benchmarking and optimisation for throughput of Spark Streaming jobs reading 500.000 msgs/sec from Kafka topics.
- Re-engineering of the default Egress Streaming platform using pure-functional Scala as a replacement to the Spark-based implementation, achieving similar throughput but reducing cost significantly since it required less resources and it enabled the business to do Continuous Delivery and no-downtime releases.
- Design and implementation of real-time tracker for cars which, when provided with a series of geocoordinates for specific roads, could collect and send stats based on average speed, speed limits, traversal time, etc. The system was developed using a clustered Akka setup with sharding across the different nodes.

Tech Stack: *Scala, Akka Cluster, Cats Effect, FS2, Kamon, Shapeless, Spark, Databricks, Kafka, Docker, AWS Fargate, SBT*

2016–2019 **Principal Software Engineer**, *Rentalcars.com/Booking.com*, Manchester (UK)

Data & Reporting department

Achievements:

- Built from the ground up two real-time analytics platforms using Lamda Architecture:
 - A customer-centric segmentation platform for customer personalisation purposes.
 - A framework and backend for multi-variant testing of our front-end, in which hundreds of A/B experiments are run on a daily basis.
- *Re-engineered for scalability* a big chunk of our taxi service **Rideways.com** (now Booking Taxis) prior to our fusion with Booking.com so it could handle the upcoming load.
- Introduced the practice of *mob programming* as a way of creating a cohesive team and upskilling quickly the members with some experience gap in relation to the senior members.
- Successfully mentored several developers into Scala and functional programming.

Tech Stack: *Scala, Akka Cluster, Akka Streaming, Cats, Kamon, Kafka, Spark, EMR, Kinesis, DynamoDB, Docker, Kubernetes, AWS, SBT*

2015–2016 **Software Team Leader**, *Rentalcars.com*, Manchester (UK)

Communications Platform

Achievements:

- No more outages. This platform used to have severe outages every single week, which were extremely costly. This was achieved by:
 - Removing queues, we changed it from having 25 different queues to just 2.
 - Re-design the data model, which was stored in Couchbase, so the operation of the platform would produce less object mutations and therefore trigger compaction less often.
 - Used lock-free asynchronous (reactive) programming for streamlining the IO work.
 - Deleting loads of code, seriously, we had a 75% of code duplication at the start.
- Reduced cost of operation by moving from bare metal to virtualized environment.
- As a by-product, we got a 3x throughput increase and ability to handle a load at least 10 times bigger at 40% of the original operational cost.
- First project in the company using an agile methodology and techniques like pair programming and TDD.

Tech Stack: *Java, RX-Java, Spring, RabbitMQ, Couchbase, Gradle*

[Summarized](#)

2014–2015 **Senior Software Engineer**, *Nektan*, London (UK)

Real Money Gaming Platform

2012–2014 **Senior Software Engineer**, *Magnetise Group*, London (UK), Contractor

Lead Generation Platform

2011–2012 **Application Architect**, *GE Capital*, Manchester (UK), Contractor

GE Fleet - Quote To Install Platform

- 2010–2011 **Senior Software Engineer**, *Indra Software Labs*, A Coruña (Spain)
Gas Natural CRM
- 2007–2010 **Software Engineer**, *Softek GDC Europe*, A Coruña (Spain)
Several Positions
- 2005–2007 **Software Engineer**, *Interlogical Data Systems*, A Coruña (Spain)
FERE Resource Planning Platform

Education

- 2004–2006 **NVQ 4 - Software Engineering**, *IES Fernando Writz*, A Coruña (Spain), *First Grade*

Skills

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|---------------|--|------------|--|
| Architecture | CQRS, Event-Sourcing, Lambda Architecture | Platforms | Kubernetes, Helm, Docker, Hadoop, AWS, Azure |
| Programming | Scala, Haskell, Python, Go, Terraform | Frameworks | Akka, Typelevel Cats, Apache Spark, Servant |
| Databases | MySQL, Couchbase, MongoDB, DynamoDB | Middleware | Kafka, Kinesis, RabbitMQ |
| Methodologies | Scrum, Kanban, eXtreme Programming, Event-Storming | Practises | Continuous Delivery, TDD, Pair & Mob Programming |

Languages

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|----------|------------|
| Spanish | Native |
| Galician | Native |
| English | Proficient |
| Italian | Fluent |

OpenSource Contributions

- pants The Pants Build tool (Maintainer)
<https://github.com/pantsbuild/pants>
- cron4s Scala CRON parser (Author)
<https://alonsodomin.github.io/cron4s>
- hschema Haskell Schema Definitions (Author)
<https://github.com/alonsodomin/haskell-schema>
- sbt-spark SBT plugin for configuring Apache Spark applications (Author)
<https://github.com/alonsodomin/sbt-spark>