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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.

After 10 years using *traditional* OOP, over the last 4 years I became a **functional programmer advocate and mentor** after having the chance to successfully put into production several services using FP principles while training other engineers.

Experience

Detailed

2019-now **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.

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.

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.

2014–2015 **Senior Software Engineer**, *Nektan*, London, UK.

Real Money Gaming Platform

Achievements:

- Building the new gaming platform as a series of RESTful microservices, enabling integrations with other casino providers.
- Built the testing platform for running game simulations and verification of expected game outcomes.

Summarized

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

Architecture	Lambda Architecture, CQRS, Event-Sourcing	Plaforms	Kubernetes, Docker, Hadoop, AWS
Programming	Scala, Haskell, Python, Go	Frameworks	Akka, cats/scalaz, Apache Spark, Servant, Distributed Process
Databases	MySQL, Couchbase, DynamoDB, Hive, Impala	Middleware	Kafka, Kinesis, RabbitMQ
Methodologies	Scrum, Kanban, Event-Storming	Practises	Continuous Delivery, TDD, Pair & Mob Programming

Languages

Spanish Native

Galician Native
Italian B1

Personal Projects

- cron4s Scala CRON parser
<https://alonsodomin.github.io/cron4s>
- kamon-cloudwatch Extension to the Kamon monitoring framework to send metric data to AWS CloudWatch
<https://github.com/alonsodomin/kamon-cloudwatch>
- scala-colog Scala pure functional logging
<https://alonsodomin.github.io/scala-colog>
- hschema Haskell Schema Definitions
<https://github.com/alonsodomin/haskell-schema>
- sbt-spark SBT plugin for configuring Apache Spark applications
<https://github.com/alonsodomin/sbt-spark>