Alonso Isidoro Román

Software Artesan

ADDRESS Badajoz
Spain

EMAIL alonsoir@gmail.com

LINKS Github profile, Blog, Twitter, linkedin

01 PROFILE

A software engineer, eternal learner, timelessly curious. I love science, all of them, but particularly particle physics, astrophysics and everything related to how to use technology to improve people's health, quality of life and productivity.

I also love arts and artist from reinassance movement, DaVinci, Michellangelo, Rafael, of course Goya, Velazquez, El Greco, Tiziano, representatives of the impressionist movement, such as Van Gogh, Renoir, Monet, Degas. Of those who are alive I like Antonio Lopez very much.

I have dreams to fulfill, to be able to work one day at CERN in Geneva contributing in some particle physics experiment. Another dream is to be able to work at the ESA trying to find habitable exoplanets, to work helping to create a system of recommendations so that medical specialists can quickly find a diagnosis to diseases and finally I would like one day to create a foundation to help train the new generation of engineers from their earliest childhood, learning to design hardware and software while they play.

Performance-driven quality assurance test professional with project management expertise. Effective at providing innovative solutions for issues to ensure delivery of optimal products. Seeking a role in the IT industry executing test cases and driving defect resolution.

02 EMPLOYMENT HISTORY

Oct 2020 — Mar 2021

Madrid

Lead software engineer at ING Direct

I led a development team for ING Direct to build a financial transaction recommendation engine to prevent tax fraud. I participated in the development of a plugin using Apache Spark with scala, Apache Kafka with java and JPGPJ/Bouncy Castle (both languages).

I built a microservice based on hexagonal architecture with java8 that made intensive use of Kafka to publish encrypted events using JPGPJ. The spark plugin basically had to periodically launch SQL queries to create a Dataframe, create a symmetrically encrypted csv file with JPGPJ, and finally copy it from the HDFS to an FTP. The files had to be generated by the difference with respect to the previous day.

I worked every day with the ING architecture team proposing solutions and ideas, as well as with the Big Data team, which I supported in specific efforts. I helped senior managers in the bank to understand what we were doing, I made sure my colleagues were following the right way to build technology.

SOFTWARE ARCHITECT/DATA ENGINEER at Stratio

I participate in the design and development of a project to NCOI (NCOI Opleidingen, @NCOIopleidingen), designing and developing a scalable microservices architecture to be able to perform Extract Transform and load data from differents sources using json, csv, txt files and external normalized databases. These data are used by a referral system so that college students get the best possible referral based on what the college knows about them.

The idea is to design a scalable distributed architecture of data consumption following the CQRS pattern, Command Query Responsibility Segregation, so that following this pattern, I can segregate the writes and readings in a distributed system so that the writes go to a cluster of data independent of the other cluster of data readings.

Together with the use and implementation of an architecture based on microservices dockerized and managed with Mesos following the Orchestrator pattern to manage the distributed transactionality inherent to each of the microservices together with a series of steps based on classification algorithms (machine learning), my colleagues and me built this architecture to give the best possible recommendations to the students of the university.

I was in charge of designing and implementing the distributed architecture and my fellow data scientists in the selection of deep learning algorithms and implementation of the different phases for classification.

I am using java, spring-boot, spring-cloud technologies like Eureka, Ribbon, Feign, docker, mesos, kafka,and a distributed postgresql port develop by Stratio.

SOFTWARE ARCHITECT/DATA ENGINEER at Stratio

in my spare time or while we were waiting for another provider to finish their part while we developed for NCOI working for Stratio, i developed some open source projects.

An scalable event-oriented recommendation engines based on apache spark deep learning algorithms, using kafka as an event engine, mongodb as a persistence engine, written in scala and published in GitHub. I started a time ago, with the advice of my fellow data scientist from Stratio, I've given it a few tweaks.
https://github.com/alonsoir/awesome-recommendation-engine
A proof of concept designed to detect and classify variable stars in stellar images taken by radio telescopes. This type of stars allows you to create a map to create routes in interstellar space.
https://github.com/alonsoir/demo-dl4j
I have also been researching the use of api deeplearning4j for facial recognition.
https://github.com/alonsoir/demoFaceRecognition
A scalable orchestration-based microservice architecture in order to periodically interrogate the bitcoin quote and make it available for multiple outside requests. I used java, spring-boot, kafka, elastic-search and docker. https://github.com/alonsoir/demo-kafka-elastic
https://github.com/alonsoir/demo-quartz
Also I have been working during the end of the year on a project to try to find out the numbers of the euromillions and the primitive, with little success but very useful because it has allowed me to practice with the functional style of the api stream that appeared with the jdk8.

I have participated in the review of a book on Kafka Streams of the Pack Publishing house, both the text and the code. Https://github.com/alonsoir/KafkaStreaming.

BIG DATA ENGINEER at Keedio

I have participated in the development and integration of a lambda architecture created for Banco Santander in order to apply a solution imposed by the central banks to these systemic banks too big to fall, Basilea 4.
The idea is to process multiple sources of unstructured data To finally arrive at a calculation of the credit risk of the bank Santander. For this we need the use of a series of components, such as Apache Flume and Apacha Kafka for the raw data intake in avro format in the landing zone of the data lake, then we have a series of engines in charge of the consolidation of the avro files in other format, parquet, which would then be exploited in the form of Hive tables in the integration with the company that is responsible for the exploitation of architecture, enrichment engines, user view creation engines that are also used for a Last phase where we finally create an excel file.
The technologies used are scala as first language, some of java, hadoop, cloudera, spark, kafka, flume, shell scripts.

My concrete participation in this project was to create a utility to create files parquets, validation, correction in case of error, parts of the api, as a set of works spark to validate quantitatively and qualitatively the architecture delivered, In other words, a method to check that the software is correct, doing the calculations correctly, applying mechanisms designed by the bank, using scala.

I develop too the part of api responsible for making necessary currency conversion, since the solution delivered is designed to be executed generically for all delegations of the Santander bank in the world, sixteen today.

Finally I was also in charge of integrating the software in the place of exploitation chosen by the Bank.

BIG DATA ENGINEER at Freelance

I have been studying and doing various training courses, like learning scala more seriously with BigDataUniversity, machine learning with Professor Andrew Ng and Apache Spark and hadoop architectures using a formacionhadoop.com course. As a result of that training I have written a couple of projects hosted on github to treat tweets in near real time using apache kafka, apache spark and some nosql databases like mongodb and Cassandra and another project about how to implement machine learning algorithms (ALS) for a recommendation engine. This project uses Apache hadoop and Apache Kafka and apache Spark, both projects are developed using the Scala language.

https://github.com/alonsoir/hello-kafka-twitter-scala
https://github.com/alonsoir/cassandra-spark-twitter-scala-app
https://github.com/alonsoir/awesome-recommendation-engine

BIG DATA ARCHITECT at Synergic Partners

My task is to design big data architectures for different clients of Telefónica and synergic partners alone.

I have participated in the initial proposal for Santander and OpenBank developing a book for them, and another proposal for a local newspaper, La Vanguardia, as well as maintaining the training cluster we have in the company.

The cluster is handled with Cloudera Manager running in AWS. I am learning scala and big data programming skills with BigDataUniversity.com in my free time.

BIG DATA ENGINEER at Tektronix

Sep 2014 — Jun 2015

Madrid

A BigData project related to the field of telecommunications. The final goal of the project is to show on a map the incidents in real time based on telecommunications optical fiber of a big city.

I design a tool similar to Flume for doing ETL tasks from different locations and source files, a tool similar to SQOOP for doing ETL from different SQL engines, and a tool designed to manage the orderly and coordinated invocation of the different components of the architecture, in which there are phases in which Apache Spark is used to calculate the noise in each of the layers of the tree.

The related technologies are Java7, apache spark,Apache Camel, Apache Impala, Hadoop, Spark, maven, postgresql, Ansible and GNU/ linux.

BIG DATA ENGINEER at Freelance

Jan 2014 — Jul 2014

Badajoz

I have developed a some proofs of concepts related with map reduce task with the data provided by datos.gob.es and Facebook data.

Another project related with how to get real time data on a web broser using web sockets, spring integration, rabbitmq with stomp support, html5 and jquery. The purpose of this proof of concept is to know where are the different buses of Dublin city, so that every person can see the bus in a map provided by google maps.

I made another project, with mongodb, spring mvc, rabbitmq broker message with stomp support and a bit of html5, jquery and css3. The purpose of this project is to save different events provided by a user.

I started my own tech blog, aironman2k.wordpress.com and i started to learn Apache Spark, with cloudera, how to use it with other technologies like apache kafka, apache flume, mongodb.

I did some courses from BigDataUniversity.com.

SOFTWARE ENGINEER at Naevatec/Kurento

Aug 2013 — Jan 2014

Madrid

I developed the core of a set of restfull web services for a whatsapp type service, also i had to develop a couple of Controllers using iOS and XCODE. The technology was a mix of j2ee 1.7, spring*, hibernate and bouncy castle for the java core and objetive C and Xcode for the iOS app. The core is an implementation of the command pattern over a set of RESTFUL web services implemented with spring MVC.

The service is deployed and ready to use for the Hospital Niño Jesus from Madrid http://www.madrid.org/cs/Satellite?pagename=HospitalNinoJesus/Page/HNIJ_home

PARTNER AND CTO with Jorge Calvo Law office at Freelance

Jan 2013 — Aug 2013
Badajoz

I developed a project for industrialize the process of creating demand on payment arrears with delinquent tenants of a neighboring community or rural. I used openxava framework.

Founder CTO at myself

Jul 2011 — Dec 2011
Badajoz

I built an IOS5 based application that makes heavy use of geo-location and consumption of Web services. After I finished developing the application, I decided to create a complete solution that allows businesses to buy products at a physical store using the smartphone's camera to read barcodes and Web services on the server. On the server side, the technologies used on the implementation were - apache CXF RESTful web services, JSON and / or XML as a mechanism for exchange of information, HashMaps competing for a cache in which to save the customer information, items to sale and the accounting entries from the sale of items, - a thread engine to launch the consultation request and / or updates on the map, hibernate as a persistence and MYSQL as an engine for data persistence. I have pending to upgrade the system with a NON SQL connector like spring-data project .

SOFTWARE ENGINEER at ATSistemas/Ocaso insurance

Jan 2011 — Jun 2011
Madrid

I implemented operational functionality, such as Research Records, Dispatch management legal advice ...
The technology used is Spring MVC, ajax, hibernate, Rational, Websphere 7, jquery, prototype, WAS7, jdk1.6, Clear CaseNovember 2010 March 2011The client was the Ministry of Justice, Government of Spain and the task was to develop the electronic apostille. I used a framework based at the ministry's own Spring MVC, Spring WebFlow, hibernate, ajax and use of caches, specifically EHCache.

SOFTWARE ENGINEER at ATSistemas/ING

Sep 2010 — Dec 2010
Madrid

My job was to tune and customize Alfresco Comunity Edition in a production environment so that the client could store their web pages, could autodeploy if system crash. This feature does not have the community version and asked me to devise a solution that would allow.
The solution was a mixture of bash shell scripts, Cron and modification from sources project from Alfresco.

SOFTWARE ENGINEER at ATSistemas/Peugeot

Jan 2010 — Aug 2010
Madrid

My job was to design and implement a range of business services related to how quality management is performed at their factories. The project involved drafting a quality report indicating weak points and strong points of the architecture. Technology used - Spring framework, namely SpringJDBC for the persistence layer, j2ee services that have injected the damages.

I also designed and implemented a concurrent and distributed cache adapted to customer needs, based on the use of ConcurrentHashMap class, threads iterating over this cache and implentacion Sun's Java Message Services to let persistency over the data.

(To perform the quality and performance report I relied on the use of the tools Google Page Speed and Yslow.)

SOFTWARE ENGINEER at Sadiel/SES

Oct 2009 — Jan 2010
Mérida

A project for the Department of Health and dependence to define a development framework that would meet the needs of all stakeholders in development teams. The project took off as mades, is based on a framework of the Junta de Andalucia. http://www.juntadeandalucia.es/xwiki/bin/view/MADEJA/

SYSTEMS ENGINEER at Alten/L'oreal

Mar 2009 — May 2009
Madrid

I performed the installation and configuration of about 80 machines with their OS and office suites, as well as individual configuration.

Security SOFTWARE ENGINEER at Alten/CECA

Jan 2009 — Mar 2009
Madrid

I conducted safety audits of electronic banking software that is being implemented in the savings banks, using JMeter and JProbe to detect memory leak problems as well as performance issues. Huge success.

SOFTWARE ENGINEER at Alten/Fogasa

Nov 2008 — Dec 2008
Madrid

Telematic project for the spanish Wage Warranty Fund.

Collaborate on product integration functionality by adding a series of web services that provide electronic signature with national manufactures coin and stamp. FNMT http://www.fnmt.es/

Technical Lead/Software engineer at Alten/Tele ónica

May 2008 — Nov 2008
Madrid

Technology consultant, research and development, testing, technical leadership. Project e-marketplace Telefonica R & D. In this project I work as a consultant, especially much R & D to design and implement an SOA architecture based on Java, learned to handle the java api and Websphere Service Registry (WSRR) from IBM, as well as its management interface, web services Java, mixed with different access databases, in addition to better knowledge of English because I had to work closely with IBM consultants foreigners.

SOFTWARE ENGINEER. at Alten/Yell Spain

Aug 2007 — Aug 2008
Madrid

Consultant, Developer, R&D.
Implementation of several J2EE-based SOA architectures for use in a new version of the website of the yellow pages and white pages.
www.paginasamarillas.es

R & D / Enhancements and features.

SOFTWARE ENGINEER at Indra/AVIVA

Nov 2006 — Jul 2007

Badajoz

Developer, R&D and testing.

Builder project / Implementation of maintenance of proprietary architecture based on AndroMDA technology http://galaxy.andromda.org/

In this project I work on technical design and implementation of a number of cases of end user applications for AVIVA, asurance business

HYPERLINK "http://www.aviva.es/es/corporativa/"http://www.aviva.es/es/corporativa/ Indra software labs, Badajoz, Badajoz, Spain.

SOFTWARE ENGINEER at Indra/Red Eléctrica de España

Oct 2006 — Nov 2006
Badajoz

Developer, testing.

REE-ARAP Project (Spanish Electricity Network) http://www.ree.es/ Users Maintenance DIRA integrated proprietary system.

Indra software labs, Badajoz, Badajoz, Spain.

SOFTWARE ENGINEER at Indra/AMAEF

Jun 2006 — Oct 2006
Badajoz

I Develop with Indra a solution for banking and insurance could communicate with each other. Intensive use of web services and caching resources with a good class design using patterns like singleton, single sign on, facade, aggregation, data access object

Indra software labs, Badajoz, Badajoz, Spain. http://www.amaef.es/

SOFTWARE ENGINEER at Indra

May 2006 — Jun 2006
Badajoz

R & D in Java Server Faces, Java Studio Creator 2, we made a port of a use case VFINCA a JSF project.

SOFTWARE ENGINEER at Indra

Feb 2006 — May 2006
Badajoz

VFINCA Project, Securities and investment funds. Data base admin, J2EE coder.

SOFTWARE ENGINEER at Telenium/IbermutuaMur

Oct 2005 — Jan 2006
Madrid

Analyst, J2ee Developer. I participated in the development of a project named IB Training Project: System user multi user management and Ibermutua customers.

http://www.ibermutuamur.es/

Medical assurance.

SOFTWARE ENGINEER at Siconet/MAPFRE

Mar 2005 — Oct 2005
Madrid

Programmer Analyst Jr

Project ST-CAT (Work System for Territorial Administrative Centres). Multi-entity for the management and treatment of collections at offices and workplaces across the national network of Mapfre Mutual.

Development and design tco.

Technologies: Java/J2EE, JSP, JDBC, Servlets, JavaBeans, EJB, XML, XSL, Eclipse, WSAD, UML, Architecture mapfre version 2.

SOFTWARE ENGINEER at Area 10

Development of a range of applications in visual basic 6 with their design of databases on Access2k: a complete application for inventory control and another to consult on the set of distance learning centers throughout Spain.
Application Development in Visual c++. The first data to insert that came home in q19 format and insert them into a DB in Access 2k and other MySQL DB. The other application was to extract data from the databases and generate a q19.
Maintenance and expansion of the website "http://www.area10.es/" www.area10.es, developed with php, html, css, javascript and mysql.

03 EDUCATION

Sep 1998 — Feb 2004
Cáceres

Polytechnic School of Cáceres / Cáceres, Spain
Technical Computer Systems Engineering

At this university I am taking a major in computer systems engineering, where I learn software design, programming, databases, operating systems and other important subjects. At this time I like programming more than dealing with operating systems, I do a lot of extra credits where there are programming subjects.

Jun 2005 — Oct 2005
Madrid

Exes
Masters Java/J2EE-Oracle-XML (352 hours) Finished

https://github.com/alonsoir/alonsoir.github.io/blob/master/certs/Diploma_Alonso-EXES.pdf

Specialized Coursework Advanced Java Programming Course (42 hours)

Web Services Programming Course (94 hours), IOS 5 course (90 hours),PHP, JAVASCRIPT, HTML (750 hours),

BigDataUniversity.com

Introduction to MapReduce Programming, with Glen Mules and Warren Pettit, BigDataUniversity.com (40 hours)

BigDataUniversity.com

Hadoop Fundamentals 1 - Version 2 with Keith McDonald, Akmal B. Chaudhri, Bradley Steinfeld, Carlos Renteria

BigDataUniversity.com

BigDataUniversity.com ((40 hours)) , Stream Computing 1, with Martin Siegenthaler, Robert Uleman, Anjali Agarwal, Rachit Arora

BigDataUniversity.com.

 Introduction to Scala, with Jamie Allen, BigDataUniversity.com (40 hours) ,

Coursera.org

Machine Learning Course, from Andrew Ng, Stanford College, Coursera.org (480 hours) Not finished yet.

formacionhadoop.com

Master Big Data Expert, from Fernando Agudo Tarancon, formacionhadoop.com (150 hours) Finished

Udemy

CI-CD with Jenkins Ansible Docker Kubernetes.

https://github.com/alonsoir/alonsoir.github.io/blob/master/certs/CI-CD%20with%20Jenkins%20Ansible%2

Udemy

CI/CD first steps.

https://github.com/alonsoir/alonsoir.github.io/blob/master/certs/CI-CD.pdf

Udemy

Getting Started with Apache Flink.

https://github.com/alonsoir/alonsoir.github.io/blob/master/certs/Getting%20Started%20with%20Apache%2

Udemy

Spark-streaming-3.0-WithScala-certification.

https://github.com/alonsoir/alonsoir.github.io/blob/master/certs/Spark-streaming-3.0-WithScala-certificati

Udemy

certificate Spark Streaming 3.0 With Scala.

https://github.com/alonsoir/alonsoir.github.io/blob/master/certs/certificate%20Spark%20Streaming%203...

Udemy

java8-certificate.

https://github.com/alonsoir/alonsoir.github.io/blob/master/certs/java8-certificate.pdf

Udemy

udemy-flink-certification.

https://github.com/alonsoir/alonsoir.github.io/blob/master/certs/udemy-flink-certification.pdf

Udemy

Docker Mastery: with Kubernetes +Swarm from a Docker Captain

In progress.

Udemy

Apache Kafka Series – Confluent Schema Registry & REST Proxy

In progress.

Udemy

Apache Kafka Series – Kafka Streams for Data Processing

In progress

04 SKILLS

Skill	Level	Skill	Level
Creativity	● ● ● ● ●	Hadoop	● ● ● ● ●
Teamwork	● ● ● ● ●	Kafka	● ● ● ● ○
Leadership Skills	● ● ● ● ●	Flink	● ● ● ○ ○
Computer Skills	● ● ● ● ●	Deep Learning	● ● ● ○ ○
Leadership	● ● ● ● ●	Cloudera	● ● ● ○ ○
Ability to Work in a Team	● ● ● ● ●	Concurrent programming	● ● ● ● ●
Ability to Work Under Pressure	● ● ● ● ●	ios coding	● ● ○ ○ ○
Adaptability	● ● ● ● ●	Maven	● ● ● ● ●
Fast Learner	● ● ● ● ●	Hudson server	● ● ● ○ ○
Leadership and Teamwork	● ● ● ● ●	Jenkins	● ● ● ● ○
Critical thinking and problem solving	● ● ● ● ●	Jmeter	● ● ● ● ●
Java	● ● ● ● ●	Jprobe	● ● ● ● ○
Spring Framework	● ● ● ● ●	Scala	● ● ● ● ○
	● ● ● ● ●	Akka	● ● ○ ○ ○
		Linux OS	● ● ● ● ●
			─ ─ ─ ─ ─

Hibernate/JPA	- - - - -	Bash scripting	● ● ● ● ●
Judit Testing	● ● ● ● ●	python	● ● ● ● ●
SQL	● ● ● ● ●	Design Patterns	● ● ● ● ●
HTML/JAVASCRIPT	● ● ● ● ●	CI/CD	● ● ● ● ●
Application servers	● ● ● ● ●	Kubernetes	● ● ● ● ●
Git	● ● ● ● ●	Docker	● ● ● ● ●
BigData	● ● ● ● ●		
Apache Spark	● ● ● ● ●		
Cassandra	● ● ● ● ●		

05 HOBBIES

Sciences, Videogames, reading sci-fi, graphic novels, tv series, cine, quality time with family and friends

06 LANGUAGES

Spanish, Castilian ● ● ● ● ● English ● ● ● ● ●

07 REFERENCES

08 REVIEWER

Oct 2019 — Jan 2020
Badajoz

TEXT AND CODE REVIEWER OF A BOOK ON KAFKA STREAM FOR PACKT PUBLISHING. PENDING RELEASE.

I reviewed the code and text of some chapters on how to stream with Kafka, Flink, Spark Streaming, as well as KafkaStreams. I added notes, improved the text, fixed the source code among other tasks. Very instructive task, I loved it.