



ABOUT ME

A software engineer, eternal learner, timelessly curious. I love science, all of them, but particularly particle physics, astrophysics, DNA study 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 renaissance movement, DaVinci, Michelangelo, 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.

WEBSITES & SOCIAL LINKS

GitHub:
<http://GitHub.com/alonsoir>

Stackoverflow:
<https://stackoverflow.com/users/449309/aironman>

Twitter:
http://@alonso_isidoro

GitHub Showcase:
<https://www.gitshowcase.com/alonsoir>

Blog:
<http://aironman2k.wordpress.com>

Linkedin:
<https://www.linkedin.com/in/alonso-isidoro-roman-8ab5744..>

About.me:
https://about.me/alonso_isidoro_p.roman/getstarted

LANGUAGES

● SPANISH

● ENGLISH

ALONSO ISIDORO ROMÁN

SOFTWARE ARCHITECT/DATA ENGINEER

📍 Badajoz
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WORK EXPERIENCE

STRATIO
Madrid
Sep 2017 - Jan 2020

● **Software architect/Data Engineer**
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 different 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.

STRATIO
Badajoz
Jul 2019 - Jan 2020

● **Reasearch and development**
In my free time I developed some open source projects, at the same time I was hired by Stratio.

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 outgoing 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>.

KEEDIO
Madrid
Nov 2016 - May 2017

● **Big Data engineer**
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 fail, 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 Apache 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.

MYSELF/TRAINING
Badajoz
Feb 2016 - Nov 2016

● **Big Data Engineer**
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-kafka-twitter-scala-app>
<https://github.com/alonsoir/awesome-recommendation-engine>

SYNERGIC PARTNERS
Madrid
Nov 2015 - Feb 2016

● **Big Data Architect**
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. I am learning scala and big data programming skills with BigDataUniversity.com in my free time.

TEKTRONIX
Madrid
Sep 2014 - Jun 2015

● **Big Data Engineer**
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 and GNU/ Linux.

MYSELF/TRAINING
Badajoz
Jan 2014 - Jul 2014

● **Big Data Engineer**
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.

NAEVATEC/KURENTO
Madrid
Aug 2013 - Jan 2014

● **Software Engineer**
I developed the core of a set of restful 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 jZee 1.7, spring, hibernate and bouncy castle for the java core and objective 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 Nino Jesus from Madrid
http://www.madrid.org/cs/Satellite?pagename=HospitalNinoJesus/Page/HNU_home

JORGE CALVO LAW OFFICE
Badajoz
Jan 2013 - Aug 2013

● **Partner and CTO**
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.

SMARTBUYER
Badajoz
Jul 2011 - Dec 2011

● **CEO/CTO**
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 .

ATSISTEMAS/OCASO INSURANCE
Madrid
Jan 2011 - Jun 2011

● **Software engineer**
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**
My job was to tune and customize Alfresco Community 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.

ATSISTEMAS/ING
Madrid
Sep 2010 - Dec 2010

● **Software Engineer**
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, jZee 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 Concurrent-HashMap class, threads iterating over this cache and implmentation 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.)

SADIEL/SES
Merida
Oct 2009 - Jan 2010

● **Software engineer**
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 madeis, is based on a framework of the Junta de Andalucia. <http://www.juntadeandalucia.es/xwiki/bin/view/MA/DEJA/>

ALTEN/LOREAL
Madrid
Mar 2009 - May 2009

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

ALTEN/CECA
Madrid
Jan 2009 - Mar 2009

● **Software Engineer**
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

ALTEN/FOGASA
Madrid
Nov 2008 - Dec 2008

● **Software Engineer**
Telematic project for a 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/>

ALTEN/TELEFÓNICA
Madrid
May 2008 - Nov 2008

● **Software Engineer**
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.**
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.

INDRA/AVIVA
Badajoz
Nov 2006 - Jul 2007

● **Software engineer**
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.

INDRA/RED ELÉCTRICA DE ESPAÑA
Badajoz
Oct 2006 - Nov 2006

● **Software engineer**
Developer, testing.
REE-ARAP Project (Spanish Electricity Network) <http://www.ree.es/>
Users Maintenance DIRA integrated proprietary system.
Indra software labs, Badajoz, Badajoz, Spain.

INDRA/AMAEF
Badajoz
Jun 2006 - Oct 2006

● **Software Engineer**
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 signon, facade, aggregation, data access object Indra software labs, Badajoz, Badajoz, Spain.
<http://www.amaef.es/>

INDRA
Badajoz
May 2006 - Jun 2006

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

INDRA
Badajoz
Feb 2006 - May 2006

● **Software Engineer**
VFINCA Project, Securities and investment funds. Data base admin, J2EE coder.

TELENIUM/IBERMUTUAM UR
Madrid
Oct 2005 - Jan 2006

● **Software Engineer**
Analyst, Developer.
IB Training Project: System user multi user management
And Ibermutua customers.
<http://www.ibermutuamur.es/> medical assurance.

SICONET/MAPFRE
Madrid
Mar 2005 - Oct 2005

● **Software Engineer**
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 testing tco.
Technologies: Java/J2EE, JSP, JDBC, Servlets, JavaBeans, EJB, XML, XSL, Eclipse, WSAD, UML, Architecture mapfre version 2.

AREA 10
Badajoz
Sep 2004 - Feb 2005

● **Software Engineer**
Developer
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 c19.
Maintenance and expansion of the website "http://www.ares10.es/" www.ares10.es, developed with php, html, css, javascript and mysql.

EDUCATION

● **INGENIERÍA TÉCNICA INFORMÁTICA DE SISTEMAS**

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

● Specialized Coursework Advanced Java Programming Course (42 hours),

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

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

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

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

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

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

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

●

SKILLS

JAVA SPRING FRAMEWORK

HIBERNATE JUNIT TESTING

HTML JAVASCRIPT

SQL APPLICATION SERVERS

GIT BIG DATA

SPARK CASSANDRA

HADOOP KAFKA

FLINK DEEPLARNING

CLOUDERA CONCURRENT PROGRAMMING

IOS CODING MAVEN

HUDSON JENKINS

JMETER JPROBE

SELENIUM SCALA

AKKA APACHE SOFTWARE PROJECTS

GNU/LINUX BASH SCRIPTING

PYTHON