# JOSÉ MANUEL NAVARRO **DATA SCIENTIST**

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### **PROFILE**

I am a Telecommunications **Engineer** turned into **Ph.D**. turned into **Data Scientist**. I am a highly versatile expert at solving industrial, practical problems by analyzing data and creating prediction models using Machine Learning techniques.

I have **5 years of experience in Data Science** projects and 7 as a researcher. I've worked on diverse data sources: while my main expertise is on computer networks, I've also worked on financial, mobile, medical and industrial projects.

I'm proficient on the **R programming language**, but I can also work on **Python**, **Excel**, **SQL and Matlab**, and have previously delved into Javascript (including D3.js), C++ and Java.



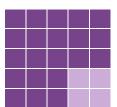
### **SKILLS**

#### **WORK**

R Programming Language Data Science

Machine Learning
Python

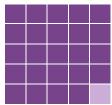
SQL



#### PERSONAL

Analysis Communication Adaptability

Creativity
Team Work





### **EXPERIENCE**

# **Research Engineer | Universidad Politécnica de Madrid** 2016 – 2018

As the final years of my Ph. D. research, I produced and published research that eliminated the need of human experts on several phases of the failure prediction process, as well as an automatic Root Cause Analysis tool. During this time I also collaborated with Fujitsu Spain for three months, assisting them in creating a prediction model to forecast wind generator piece turn overs.

## Research Intern | National Institute of Informatics (Tokyo, Japan) MARCH 2016 – JUNE 2016

As a predoctoral internship I worked with the team of Professor Yusheng Ji, aiding them in their "Big Data for disasters" project, kickstarting the analysis of a mobile user dataset to gauge the population of Tokyo.

# **Technical Project Leader | Center for Open Middleware** 2014 – 2016

I assumed the technical leadership of the failure prediction project; during this period, I developed successful Machine Learning models and guided their coding as a deliverable, coded in Spark ready for its deployment for testing.

### **Research Engineer | Center for Open Middleware**

2013 - 2014

I was part of the Machine Learning team of a project centered on predicting failures on the computer network of a large Spanish bank.

# **Research Intern | Universidad Miguel Hernández de Elche** 2011-2012

I took part in the development of a genetic algorithm for image encoding and I developed, using Matlab, a cross validation tool to optimize two different ECG-metering methods and a GUI for doctors that would apply that same method without the need for any technical knowledge.



### **EDUCATION**

# Ph. D. in Telematics System Engineering | Universidad Politécnica de Madrid 2013 – 2018

My thesis's title was "Distributed Systems Failure Management through Applied Machine Learning". I tackled the problem of predicting failures on computer networks and other kinds of systems and the issues that arose when doing so. Mainly, I proposed solutions that alleviated the need of a human expert, with the aim of creating truly autonomous systems.

# **B. Sc. Mathematics | Universidad Nacional de Educación a Distancia** 2014-2015

As a side project, a hobby and a useful tool to have at my disposal, I studied the first three semesters of the Bachelor's Degree in Mathematics.

## M. Eng. Telecommunications | Universidad Miguel Hernández de Elche 2008 – 2013

GPA: 3.3. Distinction in 8 courses. A+ in 16 courses.



### **ACTIVITIES**

#### **TALKS**

I have given five talks and seminars on recent years related to R, Data Science and Machine Learning. Two of them were given in the <u>Machine Learning Spain Meetup</u>. The other three were college-based and two can be found <u>here</u> and <u>here</u> (both of them in Spanish, though). A brief talk about the research I performed on my thesis can be also seen <u>here</u>.

#### **AWARDS**

On December 2017 my team and I obtained the second prize on the <u>Critical Care Datathon</u>. We developed, over a weekend, a survivability prediction model for cardiology patients at the ICU.

#### **SELF STUDY**

Apart from my formal studies, I have been expanding my knowledge using online resources, such as the iconic <u>Coursera Data Science specialization</u> by the John Hopkins University, and books: my main references are Practical Data Science With R and Introduction to Machine Learning.

#### **MORE INFO**

If you want to read more about the things I've done, find links to my research papers or read my blog, you can visit http://josemnavarro.com/.