



# Adrián Arnaiz Rodríguez

Computer and Data Science

23/01/1997

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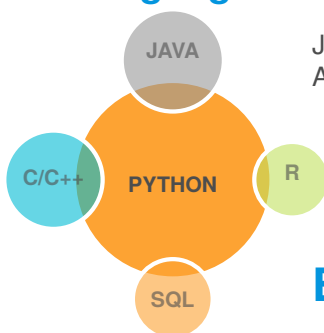
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## Programming Languages



## Languages

Spanish  
English (C1)

## Work Experience

2/20 - Ongoing **Research staff**

University of Burgos

Researching about Data Mining with the Computer Science Department, specifically with *ADMIRABLE* research group.

- Plugin for Unreal to extract and analyze VR data in Real Time
- Platform *UBUMLaas*. University Web Page that allows to run ML experiments as a service with classical and custom algorithms like Random Balance or Rotation Forest.

1/20 - Ongoing **Parkinson's Disease Detection and Monitoring through voice.** Research

Data mining techniques (ML and DL) applied to use of biomarkers extracted from the voice for the detection of Parkinson. Link: *Official page with explanation, Notebooks and links to repercussion.*

09/19 - 12/19 **Intelligent Automation & RPA Consultant**

Ernst & Young

3 projects using RPA and ML:

- Chatbot for managing Blue Prism processes through voice [internal project].
- Unbalanced Email Classification using DL [Telefónica].
- Payment tax process made with RPA with Fuzzy Name Matching problem inner [Xunta de Galicia - Public Sector].

12/18 - 07/19 **Research fellow at UBU**

University of Burgos

Research assistant scholarship in the Civil Engineering department of the University of Burgos, research group *ADMIRABLE*. Working with collaboration grant. Research in the project *Use of biomarkers extracted from the voice for the detection of Parkinson*, which is my final degree project (TFG), evaluated with honors.

July and

August 16-18 **Digital Design and Screen Printing**

Arnaiz Serigraphy

Digital design activities with Corel Draw X6, both textile and sticker designs, etc. Plotter handling: Printing and and cutting. Digital printing and manual screen printing.

## Education

2/20 - Ongoing **Master of Data Science**

Universitat Oberta de Catalunya

Finished first half. GPA: 9,7/10. Expected finish date: January 2021. Subjects like: Advanced Statistics, Advanced models of Data Mining, Reinforcement Learning and Data Visualization. **Currently doing the Master's final project in collaboration with University College of London (Dr. Baris Kanber):** *Deep Convolutional Autoencoder for denoise T1 brain MRI.*

9/15 - 7/19

**Bachelor's degree in Computer Science**

Burgos University

Graduated in Computer Science in 4 years. GPA: 8,8/10. Thesis: 9,8/10. **Extraordinary Award of Degree in Computer Engineering (Government Council of the University of Burgos).** Fluency in concepts of **Artificial Intelligence**, both theoretical and practical.

## Technical Skills

- Machine Learning with Python (Deep understanding of methods) and DL. 02/20
- Knowledge of ML Python libraries (Sklearn, Keras, Pytorch) and common Math and DataViz libraries (NumPy, SciPy, Pandas, matplotlib, ggplot...) 07/20
- Statistical Analysis with R and Python.
- Algorithmics.
- Knowledge of Data typology and data life-cycle. 09/20
- Concepts of Network Science and network modeling.
- Data Visualization with Tableau, Python, R and Gephi. 06/20
- ETL with pentaho. 06/20
- Analytic Databases and OLAP with Microsoft VS.
- Theoretical design of Analytic Databases (also operational DB). 07/20
- All this skills leads to a good Knowledge Discovery performance. 06/20
- Solve analytical problems building ML models using quantitative, statistical and ML approaches.

## Publications

- Unveiling the informal structure of an academic field in Spain: a Network Analysis** VI COMSOTEC Workshop 2020  
Conference Paper
- Network analysis of co-participation in thesis examination committees in an academic field in Spain** XIV International Conference on Industrial Engineering and Industrial Management - CIO  
Conference Paper

## Courses

- Summer School on Machine Learning and Big Data with Quantum Computing** Porto University and IBM
- Advanced Deep Learning with Keras Course** Data Camp
- Deep Learning in Python Track** Data Camp  
4 Courses: Concepts of DL, intro to Tensorflow, intro to Pytorch and advanced Keras.
- Biomedical Image Analysis Course** Data Camp
- Image Processing with Python Track** Data Camp  
3 Courses: Image Processing in Python, Biomedical Image Processing, Image Processing with Keras.

## Awards

- Extraordinary Award of Degree in Computer Engineering** Government Council of the University of Burgos  
Award for the best student qualification record of the Computer Engineering Degree from the University of Burgos, academic year 18/19.
- Prototype Award** OTRI (Information Transfer Office of Burgos University)  
Project awarded: Use of bio-markers extracted from the voice for the detection of Parkinson. Financial aid and one year of advice for the project.

## Professional Interests

Mainly, keep improving my **Data Science and Artificial Intelligence** skills.

Data Science Profile, dominating statistical and mathematical concepts, storytelling, problem understanding and solving, Artificial Intelligence concepts, leading skills and team-work.

## Other personal info

Playing federate soccer since I was 7, playing at Burgos Promesas 2000 until I was 22. Demonstrated leadership and good skills to work in a collaborative environment.

I would like to work in teams with maximum excellence for learning and continuous improvement.

## Linkedin

More information: [Linkedin](#)

## Github

More information: [Github](#)

## Entrepreneur and communication contests

01/2017

### 3rd place in Spin-Up CyL Contest

[Spin Up - Junior Achievement](#)

3rd place obtained at Innovation Contest SpinUp CyL, realized by Junior Achievement Foundation Spain. Project:

[http://www.diariodevalladolid.es/noticias/innovadores/poli-detecta-drogas-volante\\_81864.html](http://www.diariodevalladolid.es/noticias/innovadores/poli-detecta-drogas-volante_81864.html)

03/2017

### Participation final stage II Premios Semilla Empresarial

[Premios Semilla CyL](#)

Participation in final stage of II Premios Semilla Empresarial Castilla y León (Valladolid). Project:

[http://www.diariodevalladolid.es/noticias/innovadores/boligrafo-digital-pasa-limpio-apuntes\\_90273.html](http://www.diariodevalladolid.es/noticias/innovadores/boligrafo-digital-pasa-limpio-apuntes_90273.html)

2017

### Participation courses at Burgos University

[University of Burgos](#)

- "Creativity for entrepreneurs" (02/21/2017)
- "Learn to undertake: Crowdfunding" (03/14/2017)
- "Communication in public" (03/27/2017)

## Motivation

Graduated (07/2019) in Computer Science and currently studying a Master in Data Science. I intend to do a PhD by the time I finish the Master. I have options to do my PhD at the University of Burgos, but I am openly looking for other top-level Universities (preferably London or the United States).

- Final degree project (FDP) made with a collaboration scholarship oriented to a research project in the Civil Engineering department of the University of Burgos. The project is about the **Use of bio-markers extracted from the voice for the detection of neurodegenerative diseases**, a topic related to natural language processing (NLP) and signal processing and ML Classification. The project includes concepts of **data mining, machine learning and transfer learning** for the realization of the predictive model of Parkinson's disease. Project in continuous development.

A near future objective will be that the results of the research are reflected in a **paper**, due to the fact that the extraction of audio characteristics through deep and transfer learning for the detection of neurodegenerative diseases like Parkinson is disruptive. Another near future step is the **collaboration with the Burgos Hospital** to improve the algorithm and deploy the application.

Winning project of a **Prototype Award** from OTRI.

Project in the final phase of the **Call for the selection of Integration technologies**, convened by the **European Regional Development Fund: Interreg**. The contest addresses the selection of disruptive technologies that promote independent living in the home of the elderly, with disabilities, in situations of dependency or with chronic diseases.

- **Currently doing the Final Master's Degree in University Oberta of Catalunya in collaboration wit Dr. Baris Kanber from University Colleague of London**. We are developing a Denoiser Deep Convolutional Autoencoder for T1 weighted brain MRI.

1st December, 2020

Adrián Arnaiz Rodríguez