



Adrián Arnaiz Rodríguez

Computer and Data Science

23/01/1997

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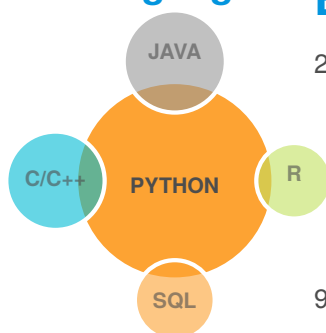
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Languages

Spanish
English (C1)

Programming
Languages



Work Experience

2/20 - Ongoing **Research staff**

University of Burgos

Researching about Data Mining with the Computer Science Department, specifically with *ADMIRABLE* and *DATAHES* research groups .

- European project Self-Regulated Learning: SmartArt.
- 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: (1) Chatbot for managing Blue Prism processes through voice [internal project]. (2) Unbalanced Email Classification using DL [Telefónica]. (3) 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 - 01/20 **MSc Data Science**

Universitat Oberta de Catalunya

GPA: 9,75 out of 10. Thesis: 9.6.

Higlhted Subjects: Advanced Statistics, Advanced models of Data Mining, Reinforcement Learning, Data Visualization and Network Science. **Mater's Thesis in collaboration with University Colleague of London (Dr. Baris Kanber):** *Deep Convolutional Autoencoder for denoise T1 brain MRI* (9.6/10). 8 out of 10 subjects graded with honors.

9/15 - 7/19 **BSc Computer Science**

Burgos University

GPA: 8,9/10. Thesis: 9,8/10. **Extraordinary Award of Degree in Computer Engineering (Government Council of the University of Burgos).**

Technical Skills

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

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.

Publications

02/20

Unveiling the informal structure of an academic field in Spain: a Network Analysis
Conference Paper
VI COMSOTEC Workshop 2020

07/20

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

09/20

Summer School on Machine Learning and Big Data with Quantum Computing
Porto University and IBM

06/20

Advanced Deep Learning with Keras Course
Data Camp

06/20

Deep Learning in Python Track
4 Courses: Concepts of DL, intro to Tensorflow, intro to Pytorch and advanced Keras.
Data Camp

07/20

Biomedical Image Analysis Course
Data Camp

06/20

Image Processing with Python Track
3 Courses: Image Processing in Python, Biomedical Image Processing, Image Processing with Keras.
Data Camp

Awards

01/2020

Extraordinary Award of Degree in Computer Engineering
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.
Government

02/2019

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.

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

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|---------|---|--|
| 01/2017 | 3rd place in Spin-Up CyL Contest
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 | Spin Up - Junior Achievement |
| 03/2017 | Participation final stage II Premios Semilla Empresarial
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 | Premios Semilla CyL |
| 2017 | Participation courses at Burgos University
· "Creativity for entrepreneurs" (02/21/2017)
· "Learn to undertake: Crowdfunding" (03/14/2017)
· "Communication in public" (03/27/2017) | University of Burgos |

Motivation and me at a glance

Graduated (07/2019) in Computer Science and recently (01/2021) got my Master's in Data Science. My background is related to AI applied to medical diagnosis or medical pipeline, thus, I would be suitable for PhD positions in the intersection of AI and medicine, knowing that my "expertise" is in the field of AI. However, I am obviously willing to reconsider the next step in my career, considering other research areas like human-centric AI, Geometric Deep Learning, Neuroscience, etc.

- Bsc Thesis 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**

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

- I have just finished my Master's in Data Science with Honors. **Master's Thesis** has been made at University Oberta of Catalunya in collaboration with Dr. Baris Kanber from University College of London. We have developed a Denoiser Deep Convolutional Autoencoder for T1 weighted brain MRI. At this moment, we want to publish, as a review paper, the wide state of the art review that I made in the thesis.

15th February, 2021

Adrián Arnaiz Rodríguez