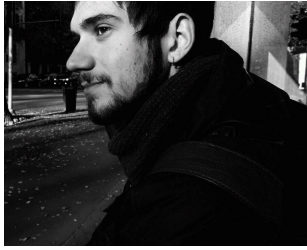


# Francisco Carrillo Pérez



## Personal Data

22 years, spanish

## Contact

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Párroco Medina Barea N°6  
Alfacar(Granada), Spain

## Web Page and social networks

Personal Web  
Github  
Linkedin

## Languages

Spanish (Mothertongue),  
English (Cambridge First  
Certificate- English FCE  
certificate)  
Italian (Conversational level  
and course at the Politecnico  
di Milano level B1)

## Programming Languages I've used more

♥ Python

## Programming Languages I've used

C, C++, Bash/Zsh Scripting,  
Java, R

## Deep Learning, Machine Learning, Data Mining

Tensorflow, Keras,  
Sckit-Learn, KNIME, Pandas,  
Matplotlib, Plotly

## Other technologies

Ubuntu/Debian/Manjaro y  
otros Linux, SQL, Latex

## Summary

I'm a last year's student of **Computer Science** at the University of Granada. In the 2016/2017 I've spent one year at the Politecnico di Milano with a **Erasmus+** scholarship. My main interests are in the fields of Deep Learning, Machine Learning and Data Mining for the prediction and analysis of big amounts of data. Also, I'm currently working in the field of e-Health products and I've worked in the Bioinformatics field in my degree's thesis, using DCNN for classifying Alzheimer disease.

## Projects

2016–Nowadays **ToothTest**

Universidad de Granada, Departamento de Óptica

Software oriented to the realization of experiments to the perception of individuals in different aspects in the field of color's scales in teeth and gum. The project could be checked **here**.

The software was used for the following **congress poster**:

- **TITLE:** Color difference thresholds for esthetic gingiva restoration: a pilot study
- **AUTHORS:** Razvan Ghinea, Maria del Mar Perez, Francisco Carrillo Perez, Ana Maria Ionescu, Juan de la Cruz Cardona, Luis Javier Herrera, Rade Paravina
- **CONGRESS:** SCAD 2016

2017–2017

**Defect Detection in Nanofibers by Image Classification** Politecnico di Milano, Milano (Italy)

This project concerns the detection of defective regions in SEM (Scanning Electron Microscope) images. These images have been acquired for monitoring the production of nanofibers. The images are contain in the following paper (Carrera2016). Scanning Elector Microscope image with anomalies in it. Also, we have the ground truth of the images, calculated also in (Carrera2016). So the different aims of the project were:

- Taking patches based in the GT images where the whole patch is anomalous, or all is normal.
- Training a classifier for predicting between anomalous or normal using a Deep Learning approach.
- Using this classifier to predict each patch of a new image.

Finally, Deep Convolutional Neural Networks were used. This is a project for the Image Analysis and Computer Vision course at Politecnico di Milano (2016/2017). The project along with the full documentation could be checked **here**

2017–2017

**Deep Learning for diagnosis based on medical images**

Universidad de Granada

My degree's thesis. In this thesis, the aim was to use Deep Convolutional Neural Networks and 2D brain images for classifying between patients with Alzheimer disease and healthy patients.

Other works in the literature reported that DCNN where good classifiers using 3D brain images but none of them used 2D images instead, that was the aim of the thesis.

The documentation is in Spanish. The documentation and the code could be checked here: **Thesis**

## Experience

2017–Nowadays **mDurance Solutions S.L**

Data Scientist

Internship at mDurance Solutions S.L. Working with data mining algorithms and signal processing for predicting physical pathologies.

I'm helping them in the prediction of muscle fatigue using EMG signals and the usage of unsupervised learning algorithms in order to find patterns in on each type of exercise, so we could try to classify patients them in different groups to figure out if they could have a certain pathology.

## Education

2013–Nowadays	<b>Computer Science</b>	Escuela Técnica Superior de Ingeniería Informática y Telecomunicaciones, Universidad de Granada
2016–2017	<b>Eramus+ Scholarship</b>	Politecnico di Milano, Milano (Italy) Laurea Magistrale in Computer Science. Courses of interest: Data Mining and Text Mining, Image Analysis and Computer Vision, Machine Learning, Soft Computing, Hypermedia Web Applications
2011–2013	<b>High School</b>	Technological Sciences IES Padre Manjón, Granada (Granada)
2006–2009	<b>Elemental grade in Music</b>	Escuela de Música de Alfacar, Granada Specialization Percussion

## Extracurricular

2012-2017	<b>Club Deportivo Universidad de Granada Rugby</b>
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## Interests

**Machine Learning:** Data analysis; optimization of processes; algorithms; Web Services; Music ; Sports