Francisco **Carrillo Pérez**
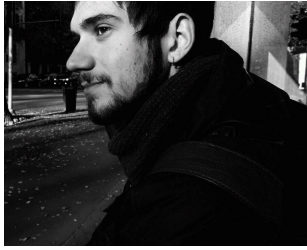
Personal Data
22 years, spanish

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Web Page and social networks
https://pacocp.github.io/
https://github.com/pacocp
https://www.linkedin.com/in/
franciscocp/

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

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 spend 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 or images.

Proyects

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 in the following link: https://github.com/pacocp/ToothTest.
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, Milán (Italia)

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 far, in (Carrera2016) they have addressed the problem as an anomaly-detection problem, without exploiting during the learning (i.e. training) stage any example of defective regions. So the aim of this project is to address the defect-detection problem as a two-class classification problem where a test image is divided in patches (small squared regions) and each patch is classified as normal/anomalous. In total there are 46 images where 40 of them contains anomalies and 6 are completely normal images.
So the different aims of the projects are:
- 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: https://github.com/pacocp/Defect-Detection-in-Nanofibers-by-Image-Classification

Education

| 2013–Nowadays | **Computer Science** | Escuela Técnica Superior de Ingeniería Informática y Telecomunicaciones, Universidad de Granada |

2013–Nowadays **Computer Science** Escuela Técnica Superior de Ingeniería Informática y Telecomunicaciones, Universidad de Granada

2016–2017 **Eramus+ Schoolarship** 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 **High School**Technological Sciences IES Padre Manjón, Granada (Granada)

2006–2009 **Elemental grade in Music** Escuela de Música de Alfacar, Granada
Specialization Percusion

Extracurricular

2012-2017 **Club Deportivo Universidad de Granada Rugby**

Interests

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