

# PABLO CAMPILLO SÁNCHEZ

I am passionate about problem-solving using Artificial Intelligence techniques and getting value from data. Continuous improving and learning is my natural state. I am currently working on applying deep learning models for estimating steel of concrete structures of buildings and optimization of complex problems using AI. More info at [www.pablocampillo.pro](http://www.pablocampillo.pro).



## CONTACT

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## SKILLS

### Backend Python Developer

Python  
Git  
SQL  
TDD  
Flask/FastAPI  
AWS Serverless Stack

### DevOps

Linux command line  
Docker  
AWS SAM  
CI/CD Bitbucket Pipelines  
AirFlow

### Data Scientist

Jupyter Notebook  
Pandas/Polars  
MLFlow/DVC  
Scikit-learn  
TensorFlow/Keras/FastAI  
Dashboards  
(Bokeh)

### Team Lead

Jira  
Communication  
Approach. Availability  
Organisation  
Delegation

## CERTIFICATES

2023 - Microsoft Azure Fundamentals  
2023 - Green Software for Practitioners  
2017 - Scrum Manager Authority Level:  
150 PDAs  
*DataCamp*  
2018 - Data Scientist with Python Track

## WORK HISTORY

- 📅 03/2023 - 09/2023  
📍 Version 1, Spain  
**Senior Python Developer**  
Develop services for a Data Management Platform of a client.
- 📅 09/2020 - 03/2023  
📍 CLERHP ESTRUCTURAS SA, Spain  
**RD Team Lead And Data Scientist**  
Lead a development team in a reinforced concrete structure engineering company for its digitization using Artificial Intelligence.
- 📅 04/2020 - 8/2020  
📍 Infomicro, Spain  
**Research And Python Developer**  
Development of a system for 24/7 monitoring pigs based on processing video images.
- 📅 02/2019 - 6/2020  
📍 University of Murcia, Spain  
**Associate Professor**  
Advanced Subjects such as Business Intelligence, Multi-agent Oriented Programming, Intelligent Systems.
- 📅 01/2017 - 3/2020  
📍 ANSWARETCH SL, Spain  
**Big Data Project Manager and Developer**  
Development of ML services on a Big Data project (Transforming Transport), a library for offline facial recognition on a mobile application, and algorithms for processing satellite images on serverless architecture.
- 📅 01/2013 - 12/2016  
📍 Universidad Complutense de Madrid, Spain  
**PhD Student**  
I was involved in SociAAL, a research project that aims at the development of a software oriented towards the early development and rapid prototyping of Aml systems.
- 📅 01/2013 - 12/2016  
📍 University of Murcia, Spain  
**Research Assistant**  
I was involved in several research projects where I implemented PoCs using Java programming language.

## EDUCATION

- 📅 09/2021 - present  
📍 Universitat Oberta de Catalunya (UOC), Spain  
**Master Of Data Science**  
Optional subjects: Deep Learning and Reinforcement Learning
- 📅 01/2013 - 12/2016  
📍 University of Murcia, Spain  
**PhD Computer Science**  
Thesis titled "Model Driven Development for Ambient Intelligence Simulations". Supported by a PhD Grant.
- 📅 09/2011 - 09/2011  
📍 University of Murcia, Spain  
**Master on New Technologies in Computer Science**  
Project titled "An Infrastructure of Social Simulation for Testing and Validation of Android Applications before their deployment".
- 📅 09/2001 - 09/2008  
📍 University of Murcia, Spain  
**Computer Science Degree**  
Project about the optimization of a segmentation algorithm (MSER) for computer vision.

## PORTFOLIO

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### Steel Ratio Estimation

A project that aims at predicting steel of reinforced concrete structures for making budgets. Both a tool for gathering and management of data and a notebook for training Keras models was developed. The model was deployed with an API using AWS serverless technologies such as API Gateway and Lambda.

**Technologies:** Notebook, Pandas, Keras, DVC, AWS Serverless.

### Topology Optimization In Concrete Structures

A tool based on a genetic algorithm for optimization of concrete structures given a set of constraints. The tool was integrated in FreeCAD.

**Technologies:** DEAP, FreeCAD.

### COVID-19 Vaccination Dashboard

An Interactive COVID-19 Dashboard Demo built on Bokeh to analyse vaccination evolution of EU/EEA countries by age ranges, vaccine brand and date range.

**Technologies:** Pandas, Bokeh.

### Sustainable Connected Cars Pilot

This pilot is focused on cars that belong to different sort of companies interested in achieving an efficient management of their fleets. 20k vehicles were managed using technologies such as MongoDB, Python and AirFlow. A Dashboard for monitoring vehicles was developed using Bokeh. For estimating fuel consumption a Random Forest Regressor algorithm was trained. A set of jupyter notebooks were created for Data Analysis Exploration.

**Technologies:** Python, MongoDB, AirFlow, Bokeh, Notebook, Pandas, Keras, Nameko.

### Offline Face Recognition

A system to identify farmworkers using mobile phones through face recognition. It aims at avoiding identity fraud of workers. A backend system was developed to update the ML model with new photos of workers and synchronize the devices. DLib and TensorFlow were used as base technologies.

**Technologies:** Python, DLib, TensorFlow, Flask.

