

Gerard Planes Conangla

Applied mathematician, Telecommunications engineer and data scientist with a PhD in Physics. Holder of three different degrees. Strong programming skills for signal processing and mathematical/statistical modelling.

Barcelona
contact@gpconangla.com
https://github.com/gerardpc
Linkedin
Personal web

WORK EXPERIENCE

2020 – PRESENT (FULL TIME)

Software Engineer

MEETOPTICS

- Data Engineer/computer scientist role, in charge of the scraping, processing and backend the company's website.
- Developing the data retrieval pipeline (scraping, natural language processing, etc).
- Creation and upgrading of a product search engine.
- Analysis of the users' behavior on the website.

2015 – 2020 (FULL TIME)

PhD in Physics

ICFO, R. Quidant's group

- Programmed from scratch C++ libraries to solve mathematical finance/stochastic differential equations, used to run simulations of the experiments (photonics laboratory).
- Proposed and lead a reinforcement learning project with an FPGA, improving $\times 100$ times the field's state-of-the-art.
- Participated in problem solving, modelling and simulation in several projects. Automated several experiments with Python, C and microcontrollers.

2014 – 2015 (FULL TIME)

Researcher

UPC, Signal and Communications department

- Studied sparse methods to solve numerical electromagnetism problems.
- Introduced novel changes of basis to reduce the dimension of linear problems (compressed sensing and PCA-related).

2014 (FULL TIME)

Data Analyst Engineer

European Space Agency, ESTEC

- Analysed radiation data from two ESA satellites and performed radiation prediction with time series techniques.
- Reduced the data cleaning and processing time 10-fold, automating the pipeline with MATLAB.

LANGUAGES

English Excellent fluency, CAE Certificate
Catalan Native language
Spanish Native language
French Moderate fluency, B1 Certificate

EDUCATION

2016 – 2020

PhD in Physics (Photonics)

ICFO

2008 – 2015

M.Eng. and B.Eng., Telecommunications Eng.

Universitat Politècnica de Catalunya

2006 – 2012

M.Sc. and B.Sc., Mathematics

Universitat Politècnica de Catalunya

2011 – 2016

B.Sc., Theoretical Physics

Universitat de Barcelona. Final project pending.

KEY SKILLS

Data Science

Stochastic processes, Machine learning algorithms, Signal processing, Time series

Domain knowledge

Physics, Computer networks, Automation, Control theory, Electronics, Music

COMPUTER SKILLS

MAIN Python, C, C++, MATLAB

OTHER SQL, Bash/Shell, Git, R, PHP, Java

AWARDS

2020 ICFO, PhD: **Cum Laude**

2015 UPC, Ms.Eng: **Cum Laude**

PUBLICATIONS

Several publications in high impact journals. See G. P. Conangla on google scholar for reference.

OTHER

2020 – Data4good, Pro Bono

Developed a data-driven engine to match job seekers/employers

2013 – Pro Bono

Created an online book sales platform with PHP and SQL