

# Paul MARTINS

## Data / Software Engineer

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 [github.com/paulmartins](https://github.com/paulmartins)

Data engineer with professional experience in consulting and digital marketing. Productionised diverse ML models to solve complex business challenges and enhance decision making processes. Participated in the development of several smart web-based applications. Knowledge of software development methodology and skilled to work in a devops environment. Embrace the open-source community and always curious about the latest tools and innovations in data science.

## TECHNICAL SKILLS

**Programming** Python : numpy, pandas, sklearn, boto3, luigi, dask, django, fastapi, ...

R : data.table, tidyverse, ggplot, plotly, Rmarkdown, leaflet, ...

Others : C++, bash, HTML/CSS, JS (React), Fortran

Tools : Docker, AWS, Git, ~~TeX~~

**Machine Learning** Regressions, Multilevel models, GLM, Bayesian inference, Ensemble learning, Clustering, Computer vision,...

**Business Intelligence** Tableau, Shiny

**Database** MySQL, MSSQL, PostgreSQL (+PostGIS)

**Systems** Mac OS X, Linux

**Office tools** MS Office/ iWorks suites

## PROFESSIONAL EXPERIENCE

**Present** | **Data Engineer | Manager, DELOITTE LLP., London, UK**  
**March 2021** *contract with AMAZON*

Lead the backend development of a web-app designed to help the client visualise the various crime, weather and environmental threats around their assets.

- > Built ETL jobs for near-real time data ingestion from several data providers,
- > Participate in the development of the python backend API,
- > Dockerize all the services (database, backend, frontend, scheduled ETL) to speed up local development and testing.

**February 2021**

**May 2019**

*contract with VIRGIN MEDIA*

Help prototype and develop a smart web-app designed to improve the network expansion process for internet fibre :






- > Productionize the training and inference pipelines of a suite of XGBoost models for revenue and market penetration predictions,
- > Participate in the development of a clustering module. Refactor and parallelise code to decrease runtime by a couple of hours,
- > Code refactoring and features addition to a cost calculator module. Decrease the module runtime from hours to seconds.

**March 2019** | **Data Scientist, SUMMIT MEDIA LTD., London, UK**  
**August 2017**

Responsible of the R&D of [Forecaster](#), a multi-channel marketing intelligence platform

- > Codebase modularisation : re-structure, package, test and document legacy production code,
- > Database migration testing,
- > Development of a bid optimisation module for PPC and PLA ads to maximise online conversions on different audiences,
- > Regularly organise and present at knowledge sharing sessions

September 2017 | PhD Student, T2K EXPERIMENT, London, UK  
 September 2013 | Software development, analysis and data visualisation

- > Features engineering, Bayesian inference, statistical and systematic errors evaluation,
- > Weekly quality control of the raw data recorded,
- > Theoretical model implementation in the Monte-Carlo events simulation,

Demonstrating and marking courseworks for various undergraduate modules

- > Mathematical Techniques, Nuclear Physics and Astrophysics, Elementary Particle Physics, ...

C++ Python Fortran ROOT-CERN CMT-CVS

## LANGUAGES

English ●●●●●  
 French ●●●●●

## + STRENGTHS

- > Passionate
- > Curious
- > Dependable

## EDUCATION

2013-2017 | Queen Mary University of London, *PhD in Particle Physics*, London, UK  
 2011-2013 | Paris-Saclay University, *Master of Science (MSc) in Fundamental Physics (with honours)*, Orsay, France  
 2008-2011 | Paris-Saclay University, *Bachelor of Science (BS) in Fundamental Physics*, Orsay, France

## ACCOMPLISHMENTS

### DATA SCIENCE CAREER TRACK

DataCamp

Python

MAY - JUN 2017

[See certificate](#)

### STATISTICAL LEARNING

Stanford University

R

NOV 2018 - MAR 2019

[See certificate](#)

### DISCRETE OPTIMISATION

The University of Melbourne

Python

MAR - APR 2020

[See certificate](#)

### MACHINE LEARNING WITH AWS

AWS

Python

MAY 2020

[See certificate](#)

## EXTRACURRICULAR ACTIVITIES

### PERSONAL WEBSITE

[www.paul-martins.com](http://www.paul-martins.com)

Development of a personal website powered by Hugo web framework and hosted with Netlify.

HTML CSS Hugo Markdown Git Netlify

FEB 2019 - PRESENT

### SUDOKU SOLVER

[sudoku.paul-martins.com](http://sudoku.paul-martins.com) [github.com/paulmartins/sudokuSolverLambda](https://github.com/paulmartins/sudokuSolverLambda)

Development of a small serverless application on AWS that solves sudoku puzzles. Designed with services such as S3, SQS, Lambda, API Gateway, Textract and DynamoDB.

HTML CSS JS Git AWS Python

APRIL 2020

### UN MIGRATION DASHBOARD

[paul-martins.shinyapps.io](http://paul-martins.shinyapps.io) [github.com/paulmartins/shiny\\_apps](https://github.com/paulmartins/shiny_apps)

Shiny Dashboard displaying the population migration flows as reported by the UN Department of Economic and Social Affairs.

R Docker Shiny

MARCH 2019