Carlos Varela Martín

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Birth	11th November 1986, Almería (Spain)

Relevant work experience

From May 2019

Data Scientist — Vandebron

Owner of Data Visualization. Implementation of tools (dashboards, APIs) for data democratization.

Flex: development of framework to bid in energy markets seizing the flexibility of a pool of assets.

Operation and maintenance of data analytics tools serving other departments.

From September 2017 to July 2019

Energy Data Consultant — Gemeente Amsterdam

Analysis of electric vehicles charging sessions. Simulation and dashboarding of energy flows combining solar energy, stationary batteries and electric vehicles.

From June 2017 to December 2018

Developer — Hero Balancer

Algorithms for the intelligent steering of heating installations. Implementation of cloud infrastructure and development of web application for data display.

From October 2015 to May 2019

Data Scientist — Resourcefully

Gemeente Amstelveen: Estimation of potential for energy flexibility in districts, combining data of households, heat pumps and electric vehicles.

East Harbour Prosumer Community: Engagement of households with PV installations. Participants can monitor and compare their energy production and consumption (▷ prosumers.nl).

Project *Amsterdam Vehicle 2 Grid*: Combining electromobility and solar energy in a household.

Education

August 2011 to August 2013

MSc: Erasmus Mundus Master in Industrial Ecology — (Double degree) Delft University of Technology / Leiden University (Netherlands); and University of Graz (Austria).

Master's thesis: *Indicators for Smart Cities: Energy, Carbon and Mobility*.

September 2004 to September 2010

Bachelor and Master in Environmental Sciences — University of Granada (Spain).

2008/09: Academic *Erasmus* stay at Leuven University (Belgium).

Languages

Native	Spanish
Professional	English
Basic (B1)	Dutch

IT Skills

Programming languages
Expert: R

Competent: Python, SQL

Data Science
Data gathering, manipulation, analysis and visualization.

Custom dashboards with Shiny framework.

Reporting and communication (from data to custom pdf files or scheduled emails).

Machine learning and optimization algorithms.

Database management: SQL and MongoDB.

Development and deployment of data microservices.

CI/CD pipelines.

Soft Skills

Development using Scrum.

Data communication: linking raw data to insights for decision makers.

Teaching: Data Visualization

Open source

Personal project
eflows: Optimizing energy flows among the elements of an energy system. ▷ https://github.com/cvmartin/eflows

Vandebron open source
ggViz: Grammar of Graphics in an R Shiny app. ▷ ggViz

References

Available on request.