

Manel Lopez-Melia

Data Scientist

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GitHub: <https://github.com/mlopez13>, Location: Geneva (Switzerland)



SUMMARY

I am a Data Scientist at Philip Morris International, with strong expertise in Python and scikit-learn, gained during my previous role at HelloFresh in the UK. As a Research Assistant at the University of Geneva, I acquired experience with PyTorch and authored two publications on Deep Learning models for rib fracture detection in CT imaging. I am passionate about Data Analysis and Statistics, with a particular interest in the development of smart, explainable Machine Learning solutions.

RESEARCH AND WORK EXPERIENCE

Data Analyst and Scientist

Aug 2025 –

Philip Morris International, Lausanne (Switzerland)

- Analyse data to identify trends, risks and opportunities for sustainability initiatives with Python.
- Create Power BI dashboards and reports with Power Query.

Research Assistant

Jun 2022 – Jul 2025

University of Geneva, Geneva (Switzerland)

- Development of Deep Learning models for rib fracture detection in postmortem CT scans with Python and Pytorch.

Data Scientist (*executive*)

Jan 2021 – Jun 2022

HelloFresh, London (United Kingdom)

- Forecasting of 1 to 10 week-out orders, recipes and ingredients with Python and Scikit-learn.
- Development of data engineering tools with Python and Databricks.
- Design of Tableau dashboards for forecast performance monitoring with SQL.

ETL Developer (*analyst*)

Dec 2019 – Sep 2020

Deloitte, Barcelona (Spain)

- Development of ETL processes for the migration of 12 GB data with Talend and SQL.

Summer student (*intern*)

Jul 2018 – Aug 2018

CERN, Geneva (Switzerland)

- Statistical analysis and visualisation of the efficiency of a b-tagging algorithm with C++.

EDUCATION

MSc in High Energy Physics Sep 2018 – Jul 2019

Universitat Autònoma de Barcelona, Barcelona (Spain)

- Average grade 8.25/10 (GPA 2.8)

BSc in Physics Sep 2013 – Sep 2018

Universitat Autònoma de Barcelona, Barcelona (Spain)

- Average grade 8.21/10 (GPA 2.8)

BSc in Mathematics Sep 2013 – Sep 2018

Universitat Autònoma de Barcelona, Barcelona (Spain)

- Average grade 8.21/10 (GPA 2.8)

PUBLICATIONS

Manel Lopez-Melia, Virginie Magnin, Sami Schranz et al. *Automatic rib fracture detection on postmortem CT data using deep learning*, International Journal of Legal Medicine, Online ahead of print, <https://doi.org/10.1007/s00414-025-03669-x>

Manel Lopez-Melia, Virginie Magnin, Stéphane Marchand-Maillet, Silke Grabherr. *Deep learning for acute rib fracture detection in CT data: a systematic review and meta-analysis*, British Journal of Radiology, Volume 97, Issue 1155, March 2024, Pages 535–543, <https://doi.org/10.1093/bjr/tqae014>

Poster presentation. Sep 2023, Udine, Italy. XXVIII International Meeting on Forensic Medicine Alpe-Adria-Pannonia. *Homicide, Suicide or Accident?*

TEACHING EXPERIENCE

Teaching assistant Sep 2023 – Dec 2023

University of Geneva, Geneva (Switzerland)

- Preparation and delivery of theoretical exercises and programming sessions for Statistical Machine Learning, with Prof Sylvain Sardy.

SKILLS

- **Programming languages.** Python, SQL, R, C++, Javascript.
- **Python packages.** Numpy, Pandas, Pandera, Matplotlib / Seaborn, Scikit-learn, Pytorch.
- **Languages.** Catalan (native), Spanish (native), English (IELTS Academic, OBS 8.0), French (B2), German (A1).
- **Soft skills.** Teamwork, empathy, creativity, optimism, commitment.