

Claude Nuttens

Lead Data Scientist, with my background in particle physics research and in business consultancy I support **strategic** actions by developing data science vision and by extracting **valuable decisional insights** from (big) data sets using advanced **analysis**, **modelling**, **manipulation** and **visualization** techniques.

★★★★ French ★★★ English ★ Dutch

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💻 www.nuttenscl.be
🕒 33 years old

📁 Experience

Lead Data Scientist

📍 P&V Group
📅 09/2017 - Now

In the Client Data and Analytics team, we develop (advanced) analytics use cases to improve the client knowledge as well as support other departments in their data science needs

- As **Lead** Data Scientist,
 - I take in charge data science projects (using machine learning, text mining, web scraping, network analytics, time series, ...) and handle the stakeholder relation
 - I technically **coach** the other data scientists and analysts around software programming, data science methodology, techniques and in content sharing (storytelling, visualization, ...)
 - I participate in the data science **roadmap creation** and use cases sourcing
 - I'm **Product owner** on the development of internal data science tools
- **Innovation ambassador** in the company: meet & challenge start-ups, participate in a fintech innovation program at Vlerick, exchange around innovation, participate in an ICMIF High Performance Course
- Python, R, SAS, SQL, Machine learning, Innovation

Data Scientist

📍 ING Belgium
📅 07/2016 - 08/2017

- as part of the Advanced Predictive and Analytics team, I provide advanced analytical support to the bank by **analysing** and **modelling** (big) data sets
- ING analytics community development
- Python, Spark, machine learning, scala, d3.js, R, ...

Business Intelligence/Data Scientist Consultant

📍 Business & Decision
📅 02/2015 - 06/2016

- Large **data** set **analysis**, **modelling**, manipulations and **visualization** to help the client to answer **strategic** and tactical questions
- 6 projects for 5 clients (start-up, banking, insurance, R&D with ministry, logistics) in data science, business intelligence and data integration.
- R, Qlikview, Hadoop, Python, Spark, machine learning, d3.js, ...

Data Scientist, PhD student in particle physics

📍 CP3 (UCLouvain)
🏆 FRIA Grant
📅 09/2010 - 12/2014

- **Data Analysis**: Search for new particles in the CMS experiment data, **CERN**
- Team supervision and contact for the **simulation** in the CMS SiStrip tracker
- **International team** collaboration and **communication**
- Chairman of the research center seminars and representative for the institute scientific personnel
- Knowledge transmission and vulgarisation

Internship in CMS

- Data analysis and algorithms improvements

📍 CERN
📅 08/2010

💻 Computer Skills

🟢 Good , 🟡 Medium, 🟠 Notions, 🟡 Superficial (low or old knowledge)

- Data Analysis

Python **Spark** **Scala** **Machine Learning** **Open Source** **C++ (Data Analysis)** **Bash script** **Jupyter** **Command line**
QlikView **SAS** **R** **SQL** **D3.js** **Git** **JSON** **Excel** **Web scraping** **MongoDB** **Neo4j** **Spotfire** **Matlab** **Tableau**

Computer Skills (part 2)

👉 Good, 👉 Medium, 👉 Notions, 👉 Superficial (low or old knowledge)

- Web development

php **JavaScript** **HTML5 & CSS3** **jQuery, jQuery Mobile** **Angular.js**

- Others

Linux **Java** **AWS (Lambda, Lex, Textract, s3)** **perl** **Powerpoint** **MS Word** **VIM** **Gimp** **Inkscape** **LaTeX** **VHDL**

Education

Online Certifications

📍 Coursera
(Johns Hopkins University)
📅 Dec. 2014

- Courses by the Johns Hopkins University on Coursera:
R Programming, Getting and Cleaning Data, Exploratory Data Analysis

PhD Student lectures Particle physics oriented

📍 UCLouvain
📅 2010- 2012

- BND graduate school in particle physics, Sept. 2011, Hoenderloo (NI)
- **Data-Mining**

MSc in physics

📍 UCLouvain
📅 2005- 2010

- Experimental physics oriented: Data-analysis, detectors, ...
- Thesis consisting in a CERN experiment data analysis

Outside work interests

- The smile of my wife and my little girl
- Broaden my knowledge and keep my mind open to the outside
- Be up-to-date and test the technical and analytics developments in data science
- Leather craft

Conferences

- Oral Presentations:
 - **Invited talk** at Vertex2013, Lake Starnberg (Germany), "Overview of the CMS Strip and Pixel detector", September 2013
 - Phenomenology symposium 2013, **Pittsburgh (US-PA)**, "Searches for Long-lived Charged Particles in pp Collisions at $\sqrt{s}=7$ and 8 TeV at CMS ", May 2013
- Posters:
 - Belgian Physical Society meeting 2013 (Louvain-la-Neuve), "Searches for Long-lived Charged Particles in pp Collisions at $\sqrt{s}=7$ and 8 TeV at CMS", 22 May 2013
 - LHCC Meeting (CERN), "Search for Heavy Stable Charged Particles in pp collisions at $\sqrt{s}=7$ TeV", March 2011
- School:
 - BND graduate school in particle physics, Sept. 2011, Hoenderloo (NI) (no talk)

Publications

As a CMS member, I'm co-author of all CMS papers since April 2011, but was an active contributor to:

- CMS Collaboration, "Search for Heavy Stable Charged Particles in pp collisions at $\sqrt{s}=7$ TeV", **JHEP** 03 (2011) 024, arXiv:1101.1645. doi:10.1007/JHEP03(2011)024. Internal PAS: CMS-PAS-EXO-10-011
- CMS Collaboration, "Search for heavy long-lived charged particles in pp collisions at $\sqrt{s}=7$ TeV", **Physics Letters B**, Volume 713, Issues 4-5, 18 July 2012, Pages 408-433
- CMS Collaboration, "Searches for long-lived charged particles in pp collisions at $\sqrt{s}=7$ and 8 TeV", JHEP 07 (2013) 122, arXiv:1305.0491. doi:10.1007/JHEP07(2013)122., July 2013 ; Internal PAS: CMS-PAS-EXO-12-026
- Nuttens, Claude Patrick J., "Overview of the CMS Strip and Pixel Detectors", PoS Vertex2013 (2013) 002, 2013