

# FABIEN TARRADE



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Date of Birth: December 17, 1978  
Nationality: French  
Marital status: Single, engaged

## Quantitative Analyst

Senior data analyst specialised in the modelling, processing and statistical treatment of big data up to 10 petabytes. PhD in Physics, 10 years of experience as researcher at the forefront of international excellence scientific research, creative, dynamic and with experience in management. Fascinated by finance and data modelling. Self-studying computational finance.

Now looking for a suitable position of Quantitative Analyst with an ambitious and international company to utilise my skills, experience and ability to conduct exploratory data analysis and models development.

## Professional skills

- Development of data analyses
- Development of data analysis tools for the processing of large volumes of data
- Optimisation of data modelling
- Parallelisation and automation of human-decision of data processing
- Conduction and implementation of statistical studies
- Strong knowledge of a wide range of software tools and programming languages
- Strong ability to learn new programming languages and software tools
- Management of international teams

## Personal skills

- Excellent problem solving skills
- Excellent communication skills
- Broad scope of knowledge and adaptability to keep learning
- Ability to work independently and as a member of a project team
- Ability to initiate projects and bring them to completion
- Ability to deal with crisis situations
- Ability to take heavy workload and high stress resistance
- Sense of responsibility

## Computer skills

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|---|-----------------|
| • Programming languages: C/C++, Python, Java      | Good knowledge  |
| • Statistical software tool: R                    | Good knowledge  |
| • Machine learning                                | Good knowledge  |
| • Microsoft Office Suite: Excel, PowerPoint, Word | Good knowledge  |
| • Version control: SVN, GIT                       | Good knowledge  |
| • Documentation: TeX, LaTeX, HTML                 | Good knowledge  |
| • Operating systems: Windows, Linux, Mac          | Good knowledge  |
| • Specialized software tools: Maple, Matlab       | Basic knowledge |
| • Database: XML, SQL                              | Basic knowledge |

## Language

- French: Mother tongue
- English: Fluent - Working language for 7 years - Writing of scientific publications and oral presentations  
Stay of 9 months in 2007 on Long Island (NY, United States of America)

## Professional experience

### CERN, Geneva, Switzerland

October 2014-December 2014 **Postdoctoral Research Fellow** (unpaid)

- Help and transition with the new conveners of a data analysis group (study of the Higgs boson<sup>1</sup>)
  - Organization of the workshop, finalization of the on-going publications, ...

## Professional experience

### Carleton University, Ottawa, Canada

June 2011- November 2014 **Postdoctoral Research Fellow** (on secondment at CERN)

- Convener of a data analysis group (study of the Higgs boson<sup>1</sup>)
  - Managed more than 100 people from more than 10 different nationalities
  - Established the group's strategy for all 10 data analyses
  - Led 4 international publications projects
  - Organised a workshop with more than 80 participants
- Data analysis (discovery of the Higgs boson<sup>1</sup>)
  - Developed, validated and maintained the analysis code
  - Developed data modelling and data-driven estimates
  - Produced common data files to share all ingredients for the statistical treatment
- Data processing and management
  - Coordinated and produced reduced data analysis files up to 10 petabytes using grid computing
- Data monitoring
  - Developed software product for a fast monitoring of the data analysis
- Publications in international scientific journals
  - Co-editor of 10 publications and contributor to more than 300 publications (peer-reviewed)
  - Editorial board member and reviewer of publications
- Presentation in more than 10 international conferences and seminars

### Brookhaven National Laboratory, New York, United States of America

February 2007- May 2011 **Postdoctoral Research Fellow** (on secondment at CERN since 2007)

- Data analysis (search for the Higgs boson<sup>1</sup>)
  - Created software solution for the analysis and the statistical treatment of the data
  - Developed data modelling and data-driven estimates
  - Developed and validated algorithm for particle's identification
- Data management
  - Coordinator and responsible of the quality of the data for more than 100 analyses
  - Implemented tools and criteria for the selection of good quality data
  - Developed software product for real-time data quality monitoring
- Data processing
  - Responsible for the production and validation of the detector calibration tasks
  - Developed software solution for the automation and the parallelisation of the 200'000 daily tasks
- Responsible for the daily operations and monitoring of the detectors (three eight-hour shifts)

## Certificates

February 2015 - present

[Introduction to Computational Finance and Financial Econometrics](#)  
Eric Zivot, University of Washington, United States of America, Coursera

March 2015 - present

[Financial Engineering and Risk Management I, II](#), Martin Haugh and Garud Iyengar, Columbia University, United States of America, Coursera

June 2015 - present

[Introduction to Finance](#), Gautam Kaul, University of Michigan, United States of America, Coursera

## Education

2003-2006

**PhD in high-energy physics**  
Laboratoire d'Annecy de Physique des Particules (LAPP) Annecy, France

1998-2003

**Master's degree of high energy physics with honours**  
Université Claude Bernard, Lyon I, France

## References

Full list of reference available on request

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<sup>1</sup> Particle discovered in 2012 at the LHC by the ATLAS and CMS experiments at the LHC, its inventors were awarded the 2013 Nobel Prize in Physics.