# Vincenzo Lavorini

## DATA SCIENTIST

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Webpage: https://vlavorini.github.io/

## CONTACT

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| **Nationality** | Italian |
| **Date of birth** | December 2, 1981 |
| **Gender** | Male |

## EXPERIENCES

**Oct 2017 - Present**
**Data Scientist**
**@ Natural Cycles**

Research and analyze company data, working with marketing, business and product teams by fetching and analyzing relevant datasets.

Main outcomes:

- Deployment of optimization algorithms based on Bayesian methods;
- Development and deployment of churning prediction algorithms  combining several Machine Learning techniques: Boosted Classification Trees (XGBoost), non-linear Dimensionality reduction (UMAP) and  soft clustering (HDBScan) - supervisor of two junior Data Scientists

**08/2016 – 09/2017**
**Data Scientist**
**@ (self employed)**

Development of Deep Learning models with TensorFlow and Keras:

- computer vision: object classification, detection and counting (CNN), image improvement (SuperResolution)
- classification models based on representation of objects with semantic correlation in multi dimensional space and analysis (entity embeddings, RNN)

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| **01/2016 – 07/2016**<br>FS developer/Data Scientists<br>@ CERN | Designed and development of a web application for QA/QC purposes.<br>Based on Node.js as core framework, with Angular.js as frontend, the application includes Data Analysis routines:<br>    • QA of hardware components via Computer Vision method (OpenCV / Python);<br>    • Automatic Report creator; |
| **07/2014 – 06/2016**<br>Data Scientist<br>@ CERN | Study and development monitoring tools for data management purposes, with web pages as GUI. |
| **12/2013 – 06/2014**<br>System engineer<br>@ INFN | I've been part of the team which set up a Data Center for the ReCaS project (22k cores, 14 PB storage). |
| **02/2013 – 06/2013**<br>Physicist<br>@ CERN | R&D on a sub-nuclear particle detector.<br>Main outcome: Development of a model to simulate the behavior of the detector. |

## CONTINUOUS EDUCATION

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| **09/2018**<br>Russian's HSE | ***Bayesian methods for Machine Learning***<br>Coursera License CZ5XFYEMFS3V |
| **10/2017**<br>Stanford University | ***Structuring Machine Learning Projects***<br>Coursera License 6FFH8XNJ54R9 |
| **09/2017**<br>Univ. Of Irvine | ***Managing Project Risks and Changes***<br>Coursera License BAMQ8PW5BZG6 |
| **09/2017**<br>Univ. Of Irvine | ***Budgeting and Scheduling Projects***<br>Coursera License XDHF2L85WYEG |
| **09/2017**<br>Univ. Of Irvine | ***Initiating and Planning Projects***<br>Coursera License FVJ98WDB6VR7 |
| **08/2016**<br>Stanford University | ***Machine Learning***<br>Coursera License DJUC43DU9NLH |

## FORMAL EDUCATION

**2009 – 2012**
Universita degli studi della Calabria (Italy)

**Ph. D. In High Energy Physics**
Thesis title: Study of the top quark differential cross section with the ATLAS detector at the LHC

**2006 – 2009**
Universita degli studi della Calabria (Italy)

**Master's degree In High Energy Physics**
Thesis title: Study of the top quark production with the ATLAS detector at the LHC

**2006 – 2009**
Universita degli studi della Calabria (Italy)

**Bachelor degree Physics**
Thesis title: Decay time of mu lepton in free and 1s bound states of aluminum

## LANGUAGES

**Mother tongue** *Italian*

**Foreign languages** *English: c1*
*French: c2*

## IT PROFESSIONAL SKILLS

**Operating systems** *Linux, Mac OS X*

**System development** *Python, Java, Bash, C++*

**Data Science/ML** *Scikit-Learn, Pandas, Numpy, Pytorch*

**Design** *Inkscape, GIMP, Adobe Photoshop, Adobe Premiere Pro, Adobe After Effects*

## PROFESSIONAL HIGHLIGHTS

I integrate easily new developers team.

I have a deep knowledge of Linux O.S. networking and Cloud Computing

I love to take initiatives for new interesting ways of development and techniques.

I get actively involved in opensource projects for code and bugs solving

## OTHER SKILLS AND HOBBIES

Writer on the online review "Towards Data Science";

Winner of a bronze medal in an international Deep Learning competition: "The Nature Conservancy Fisheries Monitoring" hosted by Kaggle.com