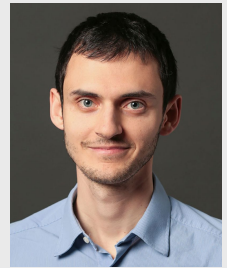


Francesco Casalegno

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[LinkedIn](#) • [GitHub](#) • [Medium](#)



WORK EXPERIENCE



Blue Brain Project (BBP-EPFL)

Machine Learning Section Manager

July 2018 – Present

Genève, Switzerland

- Created, led, and managed a team of 5 experienced machine learning engineers.
- Presented roadmaps, business cases, and project characters to the leadership board.
- Ensured engagement and support of stakeholders from inside and outside the organization.



Blue Brain Project (BBP-EPFL)

Software Engineer / Machine Learning Engineer

Sept 2015 – Present

Genève, Switzerland

- Developed deep learning models for computer vision and natural language processing.
- The models were deployed in production to solve various problems such as image segmentation, object detection, graph classification, text mining, named entity recognition.
- Implemented C++ and Python software for simulating stochastic reaction-diffusion systems.



RUAG Space

Simulation Engineer

Nov 2014 – Aug 2015

Zürich, Switzerland

- Implemented a simulation package and a data processing pipeline for in-orbit-calibration.
- The software packages were successfully used for the “Sentinel-4” satellite project design.



European Space Agency (ESA)

Simulation Engineer - Intern

Sept 2013 – Feb 2014

Madrid, Spain

- Implemented accurate methods for estimating trajectories in complex gravitational fields.
- The code positively impacted the space mission “Mars Express” by reducing collision risks.

EDUCATION



Ecole Polytechnique Fédérale de Lausanne (EPFL)

Master's degree, Applied Mathematics

Sept 2012 – Aug 2014

Lausanne, Switzerland

- GPA 5.92/6.00
- Final project “*Low-Thrust Trajectory Optimization*”, in collaboration with the Swiss Space Center.



Politecnico di Torino (PoliTo)

Bachelor's degree, Applied Mathematics

Sept 2009 – Aug 2012

Torino, Italy

- GPA 29.56/30.00. Final grade 110/110 *cum laude*.

CERTIFICATIONS



Professional Scrum Master I (PSM I)
Scrum.org – [see credentials](#)

Oct 2020



Project Management Professional (PMP)
Project Management Institute – [see credentials](#)

June 2020

SKILLS

Spoken Languages

- **Proficient:** Italian (native), English, French.
- **Advanced:** Spanish.
- **Basic:** German, Portuguese.

Programming

- **Proficient:** Python.
- **Advanced:** Git, C, C++, SQL, Bash.
- **Basic:** HTML, CSS.

Machine Learning

- **Applications:** computer vision, segmentation, object detection, natural language processing (NLP), sentiment analysis, information retrieval, recommender systems, graph classification, anomaly detection.
- **Libraries and frameworks:** PyTorch, Keras, TensorFlow, Pandas, NumPy, spaCy.

PUBLICATIONS

- Casalegno, F., et al. "Caries detection with near-infrared transillumination using deep learning." *Journal of dental research* 98.11 (2019): 1227-1233.
- Casalegno, F., et al. "Error analysis and quantification in Neuron simulations." *Proceedings of the VII European Congress on Computational Methods in Applied Sciences and Engineering (ECCOMAS) Congress*, 2016.
- Casalegno, Francesco, Andrea De Marchi, and Valter Giaretto. "Frequency domain analysis of spreading-constriction thermal impedance." *Review of Scientific Instruments* 84.2 (2013): 024901.

AWARDS

- *CERN Computing School Award for best marks (gold medal)*, 2016.
- *EPFL Master's Project Poster Prize*, 2014.
- *EPFL Excellence Fellowship*, 2013 and 2012.
- *Cassa di Risparmio di Torino AlfaClass First Prize*, 2012.

PERSONAL INTERESTS

- Hiking with friends, running, reading books, cooking.