

# Luca Zampieri

lucazampieri.com

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## EDUCATION

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### École Polytechnique Fédérale de Lausanne

*Master in Computational Science and Engineering; GPA: 5.54/6*  
*Class representative; Thesis: <https://infoscience.epfl.ch/record/267539>*

Switzerland

*Sep 2016 – July 2019*

### Politecnico di Milano

*Master in Mathematical Engineering; Specialization in Numerical Analysis*

Italy

*Sept 2016 – Oct 2019*

### KTH Royal Institute of Technology

*Exchange program in the school of Vehicle engineering*

Stockholm, Sweden

*Aug 2015 – June 2016*

### École Polytechnique Fédérale de Lausanne

*Bachelor in Mechanical Engineering; GPA: 5.26/6*

Switzerland

*Sept 2013 – July 2016*

## EXPERIENCE

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### Neural Concept *Application Engineer*

Lausanne, Switzerland · *Oct 2019 - Present*

- **Development:** Contributing to the core library by writing new operations. *Python, Tensorflow*
- **Application:** Client interactions, data collection, formalization of requirements and customized models development.

### CERN *Summer Student*

Developing a Fast Inference Engine for Boosted Decision Trees. The project became part of the ROOT framework developed by CERN. See <http://cds.cern.ch/record/2688585/> and <https://indico.cern.ch/event/773049/contributions/3476168> *C++*

Meyrin, Switzerland · *Jan 2014 - Oct 2016*

### European Space Agency *Intern*

Developing an open source tool of Global astrometry for the Gaia Satellite. Source: <https://github.com/bombrun/GaiaLab> *Python*

Madrid, Spain · *Sept 2018 - Dec 2018*

### Fluxim *Intern*

Wrote an Expression Parser with automatic and symbolic differentiation while comparing their performances for different use cases. *C++*

Wintherthur, Switzerland · *Summer 2017*

### École Polytechnique Fédérale de Lausanne

*Research and Teaching Assistant*

Switzerland

*Sept 2014 – July 2019*

- **Research Assistant - Machine Learning:** Part of the Computer Vision Laboratory. Researched new algorithms in Geometric Deep Learning and applied them for the prediction of Computational Fluid Dynamic simulations.
- **Teaching Assistant:** Courses of *Analysis I* and *Introduction to material science*. The task consists in helping students understand the course and exercises and for analysis, as responsible of a room, managing other Teaching assistants.

## PROJECTS

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**DD-HigaMod-POD 2019, with Prof. Perotto (Polimi):** Combining Hierarchical Model Reduction with standard IsoGeometric Analysis techniques. The goal being to develop efficient numerical methods for h emodynamics. *Matlab, C++*

**Stay Safe Geneva 2018:** Accident Analysis over the city of Geneva. Interactive visualizations and proof of concept for a navigation system that includes the risks of different paths. *Python, javascript*

**GetInVolvo 2018:** Using Augmented Reality to gamify the car sharing experience. App. proof of concept. *C#*

## LANGUAGES

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French (mother-tongue) · Italian (mother-tongue) · English (fluent) · Spanish (Conversational)

## SKILLS

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Python, C++, OpenFoam, Fluent, Unix, shell, git, vim, Latex  
NumPy, Tensorflow, PyTorch, scikit-learn, Pandas, GoogleCloud

## INTEREST

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**Erasmus Student Network EPFL Head of Partnership · 2017:** My role was to find new sponsors for the association and keeping good relations with existing sponsors. Organized events with more than 50 students.

**Mountain and water sports**