

# Stefano Fogarollo — Curriculum Vitae

✉ sirfoga@protonmail.com •  Stefano Fogarollo •  thefoga  
 in sirfoga

*Quidquid latine dictum sit, altum sonatur*

## Education

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### Enrico Fermi

*High school*

Liceo Scientifico

**Padova, IT**

*Sep 2009 - Jul 2014*

### Università degli Studi di Padova

*BSc*

Computer Science

**Padova, IT**

*Oct 2015 - Jul 2019*

### TU Dresden

*MSc*

Computational Modeling and Simulation, Computational Life Sciences

**Dresden, DE**

*Oct 2019 - Sep 2021*

### IGDT

*PhD*

Fast, non-rigid image fusion using deep learning for treatment evaluation

**Innsbruck, Austria**

*Nov 2021 - ongoing*

## Bachelor thesis

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**Title:** *Implementing IEC 60870-5-104 in XMonitor gateway*

**Supervisors:** Vittorio De Zuane (ThisOne!), Armir Bujari (Università degli Studi di Padova)

**Abstract:** Developing a GNU/Linux Qt-based app capable of collecting data via radio/modbus and broadcasting it to Monet via IEC 60870-5-104 protocol

## MSc thesis

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**Title:** *3D human pose estimation in the wild*

**Supervisors:** Edoardo Remelli and Sina Honari (EPFL), Bjoern Andres and Stefan Gumhold (TU Dresden)

**Abstract:** Current standard pipelines assume to have training data in the form of images, camera information, 3D annotations. Such information can only be retrieved in controlled settings, and therefore current pipelines do not work well in the wild (where we don't have access to camera information). The goal of this MSc thesis is to train a neural network only on images and 2D pose information to learn camera information and 3D pose of the human in an unsupervised fashion. This allows the pipeline to work in the wild.

## Internship

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### **Zucchetti**

*Software developer, UML robustness diagrams*  
Java, JavaScript (ECMAScript), MySQL, UML

**Padova, IT**  
*Apr 2018 - Jul 2018*

### **ThisOne!**

*Software engineer, IOT, Industrial automation*  
C/C++, Lua, Qt, OpenWrt

**Noventana, IT**  
*Feb 2019 - Jun 2019*

### **Amadeus IT Group SA**

*Software developer, departure control system*  
C/C++, ORACLE RDBMS

**London, UK**  
*Aug 2019 - Sep 2019*

## Work Experience

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### **Atroos S.r.l.**

*Full-stack software developer, industry 4.0, predictive maintenance*  
Node.js, React, MongoDB

**Noventana, IT**  
*Oct 2018 - Aug 2019*

### **Scuola Normale Superiore**

*Full-stack software developer, Cosmology Group*  
Python 2/3, Apache 2 on CentOS 6+, JupyterHub, Flask, React 15/16

**Pisa, IT**  
*Feb 2019 - Feb 2020*

### **Compass Flight Instruments S.r.l.**

*Embedded software developer, free-flight instruments*  
C/C++, Embedded Linux, GTK+ 3, BlueZ

**Castelfranco Veneto, IT**  
*June 2019 - June 2020*

## Research

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### **ZIH, TU Dresden**

*Software developer, HPC*  
C/C++ 11, Dash, OpenMPI, Fortran95

**Dresden, DE**  
*Jan 2020 - November 2020*

### **MPI-CBG**

*Software developer, dynamic load balancing, Python-C++ bindings*  
C/C++ 11, OpenFPM

**Dresden, DE**  
*June 2020 - December 2021*

### **BIOTEC, TU Dresden**

*Software engineer, COVID-19 AASD modeling*  
Matlab

**Dresden, DE**  
*April 2020 - July 2020*

### **Groupe Weigert, EPFL**

*Research assistant, attention methods in image segmentation*  
Python 3, Keras

**Lausanne, CH**  
*October 2020 - March 2021*

### **LPBS, EPFL**

*Research assistant, GANs for microscopy images*  
Python 3, PyTorch

**Lausanne, CH**  
*November 2020 - February 2021*

### **CVLAB, EPFL**

*MSc thesis, 3D human pose estimation in the wild*  
Python 3, PyTorch

**Lausanne, CH**  
*February 2021 - September 2021*

### **IGS, LFU**

*PhD, Deep learning for treatment evaluation*  
Python 3, PyTorch

**Innsbruck, Austria**  
*November 2021 - ongoing*

## Teams

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### **C.O.F.F.E.E.**

*Liceo Enrico Fermi Robotics Team*

Physics I, Game Theory

**Padova, IT**

*Sep 2013 - Feb 2014*

### **Morpheus**

*Università degli Studi di Padova Rover Team, safety controller*

C++, ROS

**Padova, IT**

*Sep 2014 - Sep 2015*

### **Quartodilitro**

*Università degli Studi di Padova Motostudent Team, sensors, dashboard*

Qt, C/C++, GNU/Linux

**Padova, IT**

*Oct 2015 - Oct 2016*

### **Race UP**

*Università degli Studi di Padova FS Team, controlunit, web, CI*

HTML & CSS & JS, Android 8, Python 2/3, Java, C/C++, Arduino

**Padova, IT**

*Oct 2016 - Sep 2019*

### **Elbflorace**

*TU Dresden FS Team, target speed optimization in DV*

C++, Python 2/3, ROS, Matlab

**Dresden, DE**

*Oct 2019 - May 2020*

## Individual competitions

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### **National mathematics contest**

*Finalist*

**Cesenatico, IT**

*May 2012*

### **Patavina Mathesis**

*5th*

**Padova, IT**

*March 2013*

### **Patavina Mathesis**

*3rd ex-aequo*

**Padova, IT**

*March 2014*

### **Regional physics contest**

*Bronze*

**Padova, IT**

*April 2014*

## Team competitions

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### **National mathematics contest**

*Finalist*

**Cesenatico, IT**

*2012 - 2014*

### **Zerorobotics**

*Winner*

**Amsterdam, Netherlands**

*21 January 2014*

### **Motostudent IV Edition**

*3rd position*

**Aragon, Spain**

*4-9 October 2016*

### **FSAE Italy**

*Winner*

**Varano de' Melegari, IT**

*19-23 July 2017*

### **FSAE Italy**

*8th*

**Varano de' Melegari, IT**

*11-15 July 2018*

### **FSAE Italy**

*7th*

**Varano de' Melegari, IT**

*24-27 July 2019*

### **FSG**

*19th*

**Hockenheimring, DE**

*5-11 August 2019*

## Hackthons

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<b>Hack Unipd</b> <i>POPUP</i> Winner	<b>Padova, IT</b> <i>20-21 June 2015</i>
<b>Hack Technogym</b> <i>Gymtonic</i> Finalist	<b>Roncade, IT</b> <i>17-18 October 2015</i>
<b>Droidcon</b> <i>Doorbell</i> Winner	<b>Torino, IT</b> <i>9-10 April 2016</i>
<b>NASA Space Apps</b> <i>Design by nature</i>	<b>Vicenza, IT</b> <i>20-21 October 2018</i>
<b>ESA Space your App</b> <i>Mushy</i> Winner	<b>Padova, IT</b> <i>24-26 October 2018</i>
<b>Hack Zurich</b> <i>MeGrow</i>	<b>Zurich, CH</b> <i>18-20 September 2020</i>
<b>Hack Zurich</b> <i>TrackBuster</i>	<b>Zurich, CH</b> <i>24-26 September 2021</i>
<b>Porsche Digital Production Hackathon</b> <i>WeCare</i>	<b>Leipzig, DE</b> <i>29 September - 1 October 2021</i>

## Languages

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<b>Italiano:</b> Professional working proficiency	<i>mother tongue</i>
<b>English:</b> Professional working proficiency	<i>B2, FCE</i>
<b>Français:</b> Limited working proficiency	<i>A1, DELF</i>
<b>Deutsch:</b> Limited proficiency	<i>A1, TUDIAS</i>

## Interests

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*In no particular order, does not include everything*

**AI:** Computer vision, reinforcement learning, SNN

**Applied computer science:** HPC

**Applied mathematics:** Trajectory optimization, cellular automata

**Cooking:** Panettone

**Functions:** TREE

**Hardware:** Neuromorphic computing

**Mathematics:** Number theory, integer series

**Physics:** Quantum information processing

**Programming languages:** Julia, Erlang, LISP, Haskell

**Sports:** running, swimming, skimo