

# FILIPPO GRAZIOLI

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[flpgrz.github.io](https://flpgrz.github.io)

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## Education

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### RWTH Aachen University

*Erasmus+*

September 2015 – October 2016

Aachen, Germany

### Polytechnic University of Turin

*Master of Science (cum laude) in Automotive Engineering*

October 2014 – March 2017

Turin, Italy

### University of Ferrara

*Bachelor of Science (cum laude) in Mechanical Engineering*

September 2011 – October 2014

Ferrara, Italy

## Experience

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### NEC Laboratories Europe

*Research Engineer*

July 2020 – present

Heidelberg, Germany

- Machine learning for precision immuno-oncology: MHC-peptide binding/presentation prediction, TCR-peptide and TCR-pMHC interaction prediction, personalized neoantigen-based cancer vaccines.
- Machine learning for multimodal microbiome-based disease prediction.
- Digital twins for vaccine optimization.

### Bosch Engineering

*Software Engineer*

July 2018 – July 2020

Abstatt, Germany

- Embedded C++ perception algorithms for monocular cameras for ADAS and autonomous driving.
- Road sign recognition.
- ROS prototype development.

### Ferrari

*Visiting Researcher (enrolled as PhD student at the University of Modena and Reggio Emilia)*

October 2017 – June 2018

Maranello, Italy

- Computer vision for driver monitoring with depth and RGB images.
- Depth estimation with GANs from monocular RGB images.
- Multimodal face verification from RGB and depth.

### RWTH Aachen University, Chair of Software Engineering

*Researcher*

May 2017 – September 2017

Aachen, Germany

- Model-based software engineering, UML/SysML.

### RWTH Aachen University, Institute of Automotive Engineering

*Student Research Assistant*

June 2016 – February 2017

Aachen, Germany

- Eye-tracking and driver behaviour understanding for autonomous driving.
- Master thesis: *Development of a Driver State Detector for Autonomous Vehicles*.

## Technical Skills

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**Computer vision:** Multimodal learning from depth and RGB images, object detection, segmentation

**Machine learning:** Deep learning, geometric deep learning, variational inference, information bottleneck

**Relevant libraries:** PyTorch, PyTorch Geometric, DGL, Tensorflow/Keras, Transformers, Scikit-learn, ROS, OpenCV

**Languages:** Python, C, C++

**Software development:** Docker, Git, Scrum, Jira, GitLab, Continuous Integration

## Languages

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**Italian:** Mother tongue   **English:** Fluent   **German:** Fluent   **Spanish:** Basic

## Interests

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**Favourite movie directors:** David Lynch, Martin Scorsese

**Favourite writers:** Jorge Luis Borges, Gabriel García Márquez

**Hobbies:** Photography, swimming, playing guitar, cooking