



FILIPPO GRAZIOLI

RESEARCH ENGINEER
BIOMEDICAL AI
NEC LABORATORIES EUROPE

ABOUT



26.10.1992



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LANGUAGES

Italian
MOTHER TONGUE

English
C2

German
C1

Spanish
A2

EDUCATION

10/2017 - 06/2018 University of Modena and
Modena, Italy

Reggio Emilia

PHD (NOT COMPLETED) IN
COMPUTER VISION

10/2014 - 03/2017 Politecnico di Torino
Turin, Italy

M.SC. IN AUTOMOTIVE
ENGINEERING CUM LAUDE

09/2015 - 10/2016 RWTH Aachen University
Aachen, Germany

ERASMUS+ PROGRAMME

09/2011 - 10/2014 University of Ferrara
Ferrara, Italy

B.SC. IN MECHANICAL
ENGINEERING CUM LAUDE

SELECTED PUBLICATIONS

- "Face Verification from Depth using Privileged Information", The 29th British Machine Vision Conference (BMVC), 2018
- "Learning to Generate Facial Depth Maps", The 6th International Conference on 3D Vision (3DV), 2018

WORKING EXPERIENCE

07/2020 - Present **NEC Laboratories Europe**
Heidelberg, Germany **RESEARCH ENGINEER**
BIOMEDICAL AI

- Graph-based machine learning
- Multimodal learning
- Microbiome research
- Neoantigen prediction for cancer immunotherapy
- Software engineering

07/2018 - 07/2020 **Bosch Engineering**
Abstatt, Germany **SOFTWARE ENGINEER**
PERCEPTION

- Perception algorithms for ADAS and autonomous driving
- Road sign recognition
- ADASIS
- C++ programming for monocular cameras
- ROS prototype development

10/2017 - 06/2018 **Ferrari**
Maranello, Italy **VISITING RESEARCHER**
COMPUTER VISION

- Deep learning and computer vision
- Road scene understanding/segmentation and object detection
- Driver monitoring, hand detection, body pose estimation
- Time-of-flight depth images

05/2017 - 09/2017 **RWTH Aachen University**
Aachen, Germany **Chair of Software Engineering**
GRADUATE RESEARCH FELLOW

- Model-based software development for E-vehicles
- Driving simulators for autonomous vehicles
- Software testing of UML/SysML models

06/2016- 02/2017 **RWTH Aachen University**
Aachen, Germany **Institute of Automotive**
Engineering (IKA)
STUDENT RESEARCH ASSISTANT
AUTONOMOUS DRIVING

- Master thesis: "Development of a Driver State Detector for Autonomous Vehicles". Design of a system able to measure the driver's level of visual awareness. The project involved Matlab/Simulink software development of machine learning algorithms and the creation of a dataset
- Design and execution of empirical tests in driving simulators and on test tracks. Research activities in cooperation with psychologists in the fields of situation awareness, driver behavior understanding and autonomous driving

11/2015 - 02/2016 **FEV GmbH**
Aachen, Germany **INTERN**
OPTIMIZATION, SIMULATION

- Simulations of performances and energy consumption of hybrid vehicles, Matlab/Simulink modeling of the vehicles and optimization of the operating strategy.

02/2014 - 06/2014 **University of Ferrara**
Ferrara, Italy **STUDENT RESEARCH ASSISTANT**
WIND ENERGY & TIME SERIES ANALYSIS

- Bachelor thesis: "Vehicle-generated Turbulence: An Alternative Source of Energy". A study meant to investigate the feasibility of the harvesting of the vehicle-generated turbulences by means of turbines installed on the highways

SELECTED SKILLS & TOOLS

- ML/DL: PyTorch, Tensorflow, Keras, Scikit-learn
- Computer vision / robotics: OpenCV, ROS
- Coding: C++, Python, Matlab
- Graphs: Neo4j, RedisGraph, DGL, Networkx
- Docker, Git, Scrum, Jira, GitLab

INTERESTS

- Music: Bossa Nova, Gipsy Jazz, Blues
- Cinema & Photography
- Latin American literature
- Languages and cultures
- Physics and neuroscience