



My research centers on the intersection of computer vision and robotics, with a focus on camera localization and 3D mapping. State-of-the-art localization and mapping algorithms struggle with fast camera motion and difficult illumination conditions, such as low light. My work addresses these scenarios. I typically deploy my algorithms on fast-flying drones, but I also work on a project to assist visually impaired people.

MAIN EXPERIENCE

From 01/07/2020

PhD candidate, Robotics and Perception Group, University of Zurich, Switzerland.

Description:

My research focuses on camera localization and 3D mapping using algorithms such as Visual(-Inertial) Odometry (VIO) and Simultaneous Localization and Mapping (SLAM).

My work was recognized by multiple awards in top-tier robotic conferences and journals, such as the IROS 2023 Best Paper Award and the RA-L 2021 Best Paper Award.

01/07/2019 – 30/06/2020

Research assistant, Robotics and Perception Group, University of Zurich, Switzerland.

Description:

I worked on a project on sensor fusion (camera, inertial measurements (IMU), GPS) with the goal of achieving cm-level accurate mapping.

The project was done in collaboration with an international construction company.

01/05/2018 – 31/10/2018

Research intern, ABB Corporate Research Center, Ladenburg Germany.

Description:

I worked on a project on machine learning for human-robot interaction. I designed a data efficient classifier to distinguish between intended and unintended human-robot contacts. My algorithm was deployed on ABB collaborative manipulators.

PERSONAL INFORMATION

Giovanni Cioffi 

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PERSONAL REFERENCES

[Personal Webpage](#)

[LinkedIn](#)

[Scholar](#)

LANGUAGES

English: Fluent
 German: Intermediate
 Italian: Mother tongue

SOFTWARE SKILLS

C/C++ 
 Advanced

Python 
 Advanced

Others: PyTorch, ROS, GIT, OpenCV, OpenMP.

INTERESTS AND ACTIVITIES

Sports: CrossFit, Football
 Cooking

EDUCATION

09/2016 – 06/2019

M.Sc. in Mechanical Engineering, ETH Zurich.

- Major: Robotics, Computer Vision, AI.
- Master thesis: Teach and Aggressive Repeat for Fast Drone Flights. Advisor: Prof. Dr. Davide Scaramuzza.
- Semester project: Deep Representation Learning for Event-based Data. Advisor: Prof. Dr. Emilio Frazzoli.

09/2013 – 09/2015

M.Sc. in Industrial Engineering, Università degli Studi di Napoli Federico II, Naples, Italy.

09/2010 – 09/2013

B.Sc. in Industrial Engineering, Università degli Studi di Napoli Federico II, Naples, Italy.