Prajval Kumar Murali

Robotics Researcher

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📍 Genova, Italy

in linkedin.com/in/prajval-kumar-murali

⬡ github.com/prajval10

SKILLS

C/C++ Python

ROS Gazebo

TensorFlow/ Keras

MATLAB/Simulink

OpenCV/ PCL

OPC-UA Azure-IoT

LANGUAGES

English
● ● ● ● ●

Italian
● ● ● ○ ○

French
● ○ ○ ○ ○

ROBOTS

Kuka Baxter

Universal Robots

Shadow Robot Hand

MiRo robot Stäubli

Pepper robot

WORK EXPERIENCE

Doctoral Candidate
BMW Group

05/2020 – Present   *Munich, Germany*

Robotics Software Engineer
Italian Institute of Technology ⧉

10/2018 – Present   *Genova, Italy*

Description

- Developed robust 3D perception algorithms with laser acquired point-clouds. Extensive experience with feature detection, pose registration (RANSAC, ICP), hand-eye calibration algorithms. Successfully deployed an application for a large steel industrial plant.
- Maintaining the robotics software stack (C++) working at the intersection of research and real-world industrial deployment.

Robotics Engineer Intern
Schaeffler Group ⧉

02/2018 – 09/2018   *Kysuce, Slovakia*

Description

- Developed a ROS-based architecture in C++ for a human-robot cooperation task using AND/OR graphs. The architecture combined perception, task planning and motion control nodes.

Robotics Engineer Intern
Laboratory of Informatics, Robotics and Microelectronics (LIRMM) ⧉

05/2015 – 09/2015   *Montpellier, France*

Description

- Developed a library to perform active calibration of bio-mimetic tactile sensors (BioTac sensors) embedded on the fingertips of a Shadow Robot using regression techniques.

EDUCATION

Ph.D. in Electronics and Electrical Engineering
University of Glasgow

10/2020 – 10/2023   *Glasgow, Scotland*

Master (M.S) in Robotics Engineering
Ecole Centrale de Nantes & University of Genova ⧉

09/2016 – 09/2018   *Nantes, France & Genova, Italy*

Bachelor (B.Tech) in Instrumentation and Control Engineering
National Institute of Technology ⧉

07/2012 – 07/2016   *Tiruchirappalli, India*

PUBLICATIONS

Implementation of human-robot collaboration model in a manufacturing environment
Prajval Kumar Murali, K. Darvish, F. Mastrogiovanni (Journal of Intelligent Service Robotics)

Active calibration of tactile sensors mounted on a robotic hand ⧉
B. Navarro, P. Kumar, A. Fonte, P. Fraisse, G. Poisson, and A. Cherubini, IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS) 2015