Mathieu Geisert

Born on the 27th February 1989, Colmar, France
Single
Driving license

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Ph. D. Student in Robotics / Aerospace Engineer

Ph. D. Student in Optimal Control, Machine Learning and Planning for Humanoid Robots and UAVs.
General Engineer in Aeronautics and Space, minor Automatics and Aeronautical Systems.

OBJECTIVE

Currently looking for a post-doctoral position -- in Robotics, Animation, CAD, Health/Industrial Management or Economy -- on Control, Optimization, Machine Learning, Neural Networks or Data Analysis – starting from May 2018.

EDUCATION

2015-now **Ph. D. in Robotics**
Optimal Control, Machine Learning and Planning *Université Fédérale de Toulouse, France*

2009-2013 **SupAéro-ISAE**
minor Automatics and Aeronautical Systems *ISAE Toulouse, France*
Certification Systems Engineering : INCOSE Associate

2007-2009 **Classe préparatoire: Technology and Engineering Sciences**
Mechanical and Electrical Engineering *Lycée Blaise Pascal Colmar, France*

2007 **Baccalaureate: Industrial Sciences and Technology**
Mechanics and Electrotechnics *Lycée Blaise Pascal Colmar, France*

EXPERIENCES

2015-2018 **Ph. D. Student at Laboratoire d'Analyse et d'Architecture Système (LAAS-CNRS)**
Optimal control and machine learning applied to UAVs and aerial manipulators [2][3]; Design of a hierarchical optimal control algorithm [1]; Machine learning for planning bipedal locomotion on uneven terrains; Ph. D. student representative and supervision of projects with M. Eng. students.

2014-2015 **Engineer at LAAS-CNRS**
Development for a motion planning software (Humanoid Path Planner); Development of a 3D viewer (Gepetto-viewer); Technical support for the European project *EuRoC* (simulation environments, website, team support, test environments, tests and evaluation of programs).

Jun/ Nov 2013 **Internship at LAAS-CNRS**
Implementation and test of visual servoing on a humanoid robot (HRP-2) [4].

2011-2012 **10 months Working Holiday Visa in Australia**
Woofing, fruit picking, travel.

2007-2013 **Robotic Clubs**
CAD, numerical machining and machining with manual lathe of mechanical parts; CAD, machining, assembly of circuit boards; Programing of PLCs ; Student project on odometry; Implementation of optimal trajectory and optimal politic algorithms.

SKILLS

Informatics
Windows/Linux, Python/C++/Matlab/C/JAVA, git, cmake, ROS, PHP, html, xml, Office, Latex.

Mechanics & Electronics
Mechanical CAD (SolidWork/Catia), Electronical CAD (Altium Designer), Machining, Assembly

Publications

[1] Regularized Hierarchical Dynamic Programming (TRO 2017)
[2] Trajectory Generation for Quadrotor based Systems using Numerical Optimal Control (ICRA 2016)
[3] Using Memory of Motion to Efficiently Warm-Start a Nonlinear Predictive Controller (summited to ICRA 2017)
[4] Airbus/future of aircraft factory HRP-2 as universal worker proof of concept (HUMANOIDS 2014)
[5] Multi-contact Locomotion of Legged Robots in Complex Environments – The Loco3D project (RSS Workshop 2017)