Jeroen De Maeyer (@JeroenDM)

Summary

I have a strong interest in learning, programming, teamwork, reading and climbing. I'm decently skilled in all but the last one.

Experience

Vocational

PhD Student, *KU Leuven*, Hasselt, Belgium, (2016 – . . .).
IROM: Industry-ready optimal motion plannig at the ACRO research group
Promotor: prof. Eric Demeester, co-promotor: prof. Jan Swevers.

Teaching assistant.
I supervised excersise sessions for the Dynamics course
in the Master of Engineering Technology.

Researcher, *KU Leuven*, Ghent, Belgium, (2014 – 2016).
TGVelo project: design and test a quality system for commuter e-bikes.
This included processing measurement data (in R) and presenting findings to companies.

Projects

MoveIt kinematics plugin.
I implemented an inverse kinematics plugin in MoveIt for the opw kinematics solver implemented by Jonathan Meyer. I'm maintaining the plugin with the help of Simon Schmeisser and Gijs van der Hoorn (github.com/JeroenDM/moveit_opw_kinematics_plugin)

Acrobotics.
Python package to implement robot motion planning algorithms, with af focus on semi-constrained end-effector path following (github.com/JeroenDM/acrobotics).

Planar Python Robotics (ppr).
Python package with building blocks to implement robot path planning algorithms in 2D. Contains Python bindings for C++ code using SWIG
(u0100037.pages.mech.kuleuven.be/planar_python_robotics/).

Miscellaneous

Air Cargo Challenge, *EUROAVIA*, (2011 & 2013).
An international competition to design, build and fly
a model plane carrying as much payload as possible.

Athens programme, *Madrid*, (2014).
A one week of courses on unmanned solar airplanes design.

Education

2019 **Machine Learning**, *Coursera*.
The famous Coursera course by Andrew Ng teaching the basics of machine learning.

2017 **Optimization of Mechatronic Systems**, *KU Leuven*, Belgium, Highest mark.
A one semester course teaching the basics of numerical optimization.

2009 – 2014 **MSc Eng: Mechanical Engineering**, *KU Leuven*, Belgium, Cum laude.
Module: Aero and space engineering
Master thesis Real time estimation of spacecraft reaction wheel friction
In cooperation with the European Space Agency - ESTEC

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Skills

Programming **Python, C++**, Matlab, Scilab R, LaTeX, SWIG (C++ to Python), Arduino, full time Linux user, CasADi, basic front-end development (Module Pattern in JavaScript)

Languages

Dutch Mother tongue

English Professional working proficiency

French Elementary proficiency

Interests

Climbing, drinking coffee, alpinism, skiing, snowboarding, learning, reading.

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