GuilhermeSousa

contact

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GitHub://GuilhermeGSousa

languages

Portuguese C2 (Mother tongue)
French C2 (Mother tongue)
English C2
Spanish proficiency
German A1 level

coding

C, C++, C#
Python,
JAVA, Matlab & Simulink

software & libraries

SolidEdge/SolidWorks, LateX, Office, OpenCV, Qt, Unity, Linux & ROS

education

2015-Now **MSc** in Aerospace Engineering — Instituto Superior Técnico, Portugal
Specialization in Avionics and Control

2015 **ERASMUS, Masters** of Systems' Mechatronics — IPSA, Paris

2012–2015 **Bachelor** of Aerospatial Engineering — Instituto Superior Técnico, Portugal

experience

Part-Time and Internships

Now **ENAC** — Toulouse, France
Developing at the MAIAA (Applied Mathematics, Computer Science and Automation) department of ENAC a non-linear controller for commercial aircraft using neural networks and machine learning

February -May 2016 **IPSA Space Systems** — Paris, France
Worked on real-time data filtering and sensor fusion for the Jericho rocket project, for the ISS student association with a partnership with CNES (Centre National d'Études Spatiales). Developed an android app to control Jericho subsistems through bluetooth

August 2015 **ProDrone** — Lisbon, Portugal
Summer Intern
Worked on a team responsible for the implementation of a control algorithm of an autonomous drone used for wind turbine inspection

projects and achievements

2016 **TCAS implementation in C++** — IST
Implemented a TCAS system in C++ using Qt for a simulation of airspace collisions, using UDP to communicate between simulated aircraft

2016 **Autonomous Land Drone Project** — IPSA
Designed in CATIA and programed an autonomous 3D printed drone for an University project during my ERASMUS program

2015 **IMM Algorithm in ATC Systems** — IST
Implemented an IMM algorithm for two Kalman filters in Simulink to filter data from a radar simulator

2014 **Mobile Game Published** — App Store
Published a game named "Blockalicious!" written in JAVA using OpenGL on the Google Play Store. Google Play link here