GuilhermeSousa
Looking for a permanent contract in Embedded Software Development

contact
Résidence 6 Apt.
6126, Av Edouard
Belin nº4
31400 Toulouse
+33(0)781726068
guilherme.sousa1994
@gmail.com
LinkedIn://guilhermegsousa
GitHub://GuilhermeGSousa

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

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

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

education

2015-Now	**MSc** in Aerospace Engineering Specialization in Avionics and Control	Instituto Superior Técnico, Portugal
Feb-May 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	**SAT solving algorithm**	IST
	Developed a boolean satisfiability problem interpreter and solver in Python as an Artificial Intelligence University project	
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	**Data filtering 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	

interests

Former portuguese national team player, currently playing for ENAC's rugby team