Engineer: Robotic software developer

About the company

We are Hovering Solutions, a steadily growing company headquartered in London. In our development hub in Madrid city, Spain, we are creating disruptive technology solving a major problem related to the inspection and 3D digitalization of indoor/underground infrastructure using Autonomous Flying Robots. We highly value the contribution of all team members to the decision-making process enabling them to drive the growth of our company. Hence, we strive to create the best possible working atmosphere making feel the team members comfortable as we are highly interested in a long-term relationship with each person we hire.

About the position

Our flying robots are a kind of autonomous aerial drones involving perception, navigation, and pose estimation algorithms. As technology developers, we do implement those algorithms from scratch, having a competitive advantage in the aerial robotic market. Starting with a concept design, the algorithms are normally tested both in simulation and real robotic platforms to assess its proper behaviour in different scenarios (horizontal tunnels, inclined pipes, and vertical shafts among others) before being use in real missions. The candidate will be involved from the design to testing stages, including the implementation phase, which is programmed in C/C++ language.

Summary of the tasks

- Concept design of perception, navigation and pose estimation algorithms.
- Pre-testing, simulation, implementation, and performance assessment of the algorithm's designs.
- Programming and debugging of algorithms in both laboratory and real operations.
- In-field support during implementation stage (national and international travelling is required).

Qualifications and skills

- Master's Degree or equivalent education in Electronics, Mechanics, Aeronautical, Computer Science or similar technical degree (mandatory).
- Programming skills in C/C++ based on real-time applications (minimum of 3 years of experience is mandatory).
- Experience in the field of autonomous navigation focused on robotic applications (mandatory).
- Knowledge in Linux based embedded hardware devices (desirable).
- Math oriented mindset. Agility in the usage of complex rotational matrixes, multi-frame transforms and advance filtering techniques are mandatory. Experience with *Matlab* or similar software will be positively evaluated.
- Proven experience in AI and/or computing vision is mandatory (TensorFlow, OpenCV, etc.).
- Knowledge in 3D simulation environments aimed to robotic applications (mandatory).
- Proven experience of at least 3 years in a similar position is desirable.
- Fluent English skills orally and written (C1 or higher).
- European driving license.
- Willingness to travel national and internationally for short periods.