EDUARDO GRIFO

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EXPERIENCE

Robotics and Software Developer

BladeInsight

April 2020 – Present Lisbon, Portugal

- Key role in the development of a UAV based robotics solution for autonomous wind turbine inspections, from the proof of concept stage to the successful product launch;
- Contributed to the success of the solution that, one year after its launch, is operational in more than 10 different countries and has already serviced 958 turbines, including 48 unique models;
- Recognized as the go-to expert for critical field missions, leveraging in-depth knowledge of the system to swiftly resolve issues and ensure seamless operation;
- Successfully deployed our solution offshore, demonstrating the ability to work in high-pressure, extreme environments;
- Effectively managed stress levels of key clients, ensuring satisfaction and smooth project execution;
- Proficient in independent problem-solving with a track record of effective collaboration with cross-functional teams, including product owners, to discuss high-level strategy, ensuring the development of solutions that meet project requirements;
- Developed both perception and navigation algorithms for robotic solutions, using on-board sensors such as LiDAR, cameras, and IMUs, leveraging knowledge in forward and inverse kinematics, optimization problems, collision-free motion planning, control system design, rigid body dynamics, geometry, and linear algebra;
- Ensured code reliability through rigorous validation, employing simulation environments including HITL, CI/CD, static code analysis, profilers, and peer-reviewed code via pull requests, while maintaining awareness of compile times;
- Experience with third-party tools such as PCL, OMPL, Orocos, and the Ceres solver, for various tasks.

R&D Software Engineer

Fraunhofer AICOS Portugal

February 2017 – April 2020 Porto, Portugal

- Developed my master's thesis with a focus on autonomous navigation of nano UAVs in indoor environments, which garnered notable recognition in a prominent newspaper;
- Use of UAVs for autonomous opportunistic data collection in the field of precision agriculture;
- Supervised four master students working on robotics and embedded development topics;
- Specified and developed the communication drivers for an IoT device licensed to the German company Sensry;
- Skilled in developing firmware and hardware solutions for IoT applications, including custom hardware configurations without floating point arithmetic capabilities and different architectures such as ARM, x86/x64, and MIPS.
- Contributed to the development of a custom Linux distribution using Yocto for a gateway device provided by the Portuguese company Tekon Electronics in the Industry 4.0 context;
- Vital team member in PCB development, responsible for IC component selection and schematic reviews across multiple projects.

SUMMARY

Experienced Robotics Engineer with 6+ years of hands-on expertise in research and industry, specializing in lidar-based systems, signal processing, automation, control, and rigid body dynamics. Proficient in hardware and software development, robotics, and computational math.

TECHNICAL SKILLS

C/C++ | Python | ROS | Linux | Bash | Git | CI/CD | Agile/Scrum

EDUCATION

B.Sc. in Electrical and Computer Engineering

University of Porto, Faculty of Engineering

Oct 2012 – Sept 2015

M.Sc. in Automation, Robotics

University of Porto, Faculty of Engineering

Sept 2015 – Sept 2017

Erasmus+ program

Technische Hochschule Nürnberg Georg Simon Ohm

Feb – July 2016

VOLUNTEER WORK

Topic Responsible of EBEC Final 2016

Board of European Students of Technology

Oct 2015 – Aug 2016 Belgrade, Serbia

Responsible for a team of 6 people and all competitions held at the event, done in partnership with Autodesk, EATON and the European Patent Office.

OTHERS

- Drone pilot: 50+ flights
- GWO WINDA ID: EG020538PT
- Languages: English, Portuguese, Spanish
- Driving License: AM, A1, B1, B
- Hobbies: Surf, Diving, Beer brewing
- Surviving skills: 130+ camping nights