

## PhD in Information Technologies @ SC Robotics

April 2024

### What we offer

At SC Robotics we are currently developing a hardware and firmware solution to **integrate embedded AI and analytical capabilities into our product line of autonomous sensing and monitorization tools**. These devices are targeted at the precision agriculture, fishing, industrial automation or digital signage industries.

You will be incorporated into the software/firmware team and participate in the tasks of design, architecture and firmware implementation of the ML algorithms implemented on device, and the data analytics framework. Identifying trends, anomaly detection and operator assistance are the main goals of our solutions.

Our current research focuses on three main challenges:

- Developing embedded AI models that integrate images and environmental data (such as temperature, pressure, gas concentration) for our innovative agro-tech monitoring devices. These models aim to provide accurate and timely information on the quality and health of crops, farms and other related sectors.
- Transforming IoT sensor data (such as accelerometer, temperature, differential pressure) into actionable insights for optimizing preventive maintenance and reducing noise and energy consumption in climate control systems.
- Applying advanced data analytics and signal processing methods to extract meaningful patterns and anomalies from industrial machinery sensor data, and to generate recommendations for improving the performance, efficiency or optimize the energy consumption of various systems.

We are a young and dynamic company and would like you to participate in our general workflow, with periodic reviews of new opportunities and undergoing projects to understand the impact your work is having on other people.

- **Pay range: 34-40k€.**
- Flexible work schedule. Hybrid working once you are set up.
- Projects with state-of-the-art technologies and key companies.
- Integrate into a team of experienced engineers.
- Growth opportunities within the company.

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### What we look for

- **MANDATORY: PhD in Physics, Engineering, Mathematics or related discipline Data Science, Telecommunications Engineer, Mathematics, Physics or a relevant field. PhD should have been validated by a Spanish university.**
- 3+ years of experience in data analytics/business intelligence or ML development with TinyML framework.
- Digital signal processing and computer vision algorithms.
- Knowledge of programming languages Python, C or C++.
- Good communication (written and verbal) skills in English.
- Our work dynamic requires a high capacity for self-organization and teamwork, good communication and analytical skills.
- Experience of evaluating industrial process control algorithms would be a plus.

### Who we are

We are an experienced team focused on developing embedded devices for agriculture, maritime, space, logistics and food industries, among others. Our company designs electronics, mechanics and firmware, giving to our customers a turn-key solution, usually in collaboration with very representative companies of each market.

Some of our success stories include:

- Datasense: a set of *dataloggers* for remote monitoring of critical facilities and equipment.
- Libatio: a tool for monitoring wine maturation comprised of a smart bung and an AI-based platform.
- Ntouch: a novel contactless interface for industrial equipment based on TinyML.

If that sounds interesting to you, come work with us!

Contact us at [info@scrobotics.es](mailto:info@scrobotics.es).