CANDIDATE PROJECTS 2025-2026

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We are Verisure

At Verisure, we believe that everyone has the right to feel safe and secure

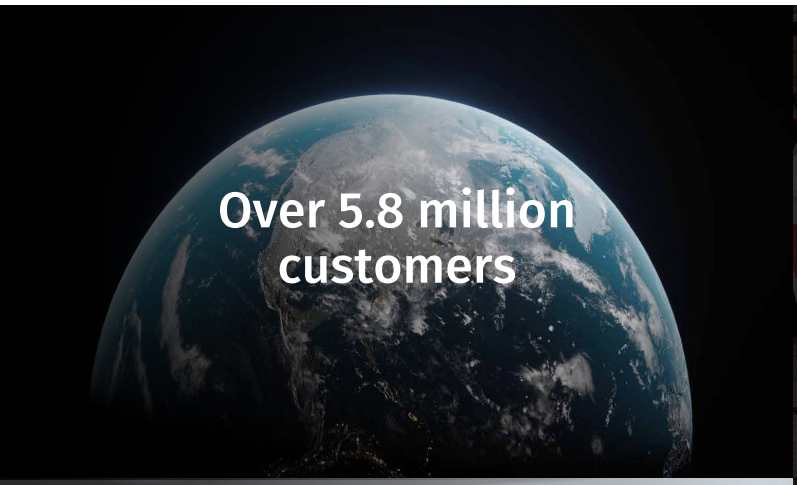
Verisure is the number one provider of professionally monitored security services with 24/7 response in Europe and Latin America. Every day, our dedicated teams use leading technology to keep over 5.8 million families and small businesses safe from intruders, fire and health emergencies. Our mission is to give our customers peace of mind by protecting what matters most to them. This is founded on our belief that everyone has the right to feel safe and secure.

Since being founded in Sweden in 1988, we have expanded across Europe, and opened operations in Latin America, with our customers now spanning 17 countries.

Thanks to a strong focus on high quality service, we aim to have the most satisfied and loyal portfolio of customers in the industry. We estimate that we have some of the strongest growth and retention rates globally in consumer-facing services, which demonstrates our commitment to exceptional service levels and strong value proposition to our customers.

Alongside the Verisure brand, we operate as Securitas Direct in Spain, Portugal and for business customers in Sweden. In 2020, Arlo Europe became part of Verisure.

We are building on over 35 years of expertise so that our growth and innovation continues to shape the future of the security industry.



What Verisure stands for

We are people protecting people

We are the leader in professionally monitored security services in Europe and Latin America. We Deter, Detect, Verify, and Intervene to protect our residential and small business customers from intruders, fire, and health emergencies.

Providing peace of mind

We protect over 5.8 million families and small businesses from intrusion, fire and health emergencies. Our service includes 24/7 monitoring, expert verification and response, customer care, maintenance, and technical support.

1 Project:

Exploring secure solutions for electronic systems

General info:

9 months

4 hours /day

500 € /month

Goal:

The main goal is to analyze what advantages are bringing secure solutions over standard C++ development. Evaluate the effort needed to develop a simple service that can interact and communicate with the rest of the system. Determine if it's a valid architecture under our constrained environment.

Tasks:

- Analyze available build systems and see how they fit in our current architecture using Rust
- CMake (current solution)
- Evaluate performance under memory constrained conditions
- How to apply Clean Architecture, Solid Principles and TDD
- How to integrate with existing C++ libraries and IPC middleware (DBUS and DDS)

Required skills:

- C/C++ programming
- Object Oriented Programming

Competences that will be developed:

- Advanced C/C++ programming
- Rust Development
- Embedded Software
- Clean Architecture and Test Driven Development

2 Project:

Lean BDD Challenge: Testing Smarter on Embedded Systems

General info:

9 months

4 hours /day

500 € /month

Goal:

The main goal is to determine what could be a valid mix between a fully fledged BDD system, (current solution uses full Python with Behave library) and a memory and flash constrained approach but maintaining an easy to read and write system.

Tasks:

Use Host-Device Hybrid Testing, splitting tests:

- Host-side (PC): Use Behave to orchestrate tests and send commands to the embedded device.
- Device-side (MicroPython): Implement testable functions and expose them via a serial or network interface (how to handle test cases where connectivity failure is part of the test?)

Evaluate alternative Frameworks

- Use unittest-like frameworks adapted for MicroPython (e.g., utest, unittest module in MicroPython).
- Wrap test cases in a BDD-style syntax manually.

Implement a custom solution for a lightweight BDD framework

- Parsing .feature files manually or using a simplified format.
- Mapping steps to Python functions using decorators or a simple registry.
- Logging results in a lightweight format.

Required skills:

- Python Programming

Competences that will be developed:

- Behavioral Driven Development and Develop for Testability
- Advanced Python
- Linux and embedded systems

3 Project:

Living Spaces Lab: Modeling Human Presence with Sensors

General info:

9 months

4 hours /day

500 € /month

Goal:

The main goal is to monitor the activity when there's human presence in the installation in order to simulate it when the premises are empty.

Tasks:

- Enhance Presence Model, written in Python with additional sensors with information about human presence
- Assign areas to sensors and actuators within the model
- Track and monitor actions associated with areas when presence is detected and feed a history tracker
- Evaluate history activity to recreate most probable actions when the presence is no longer detected

Required skills:

- Basic knowledge in data modelling
- C/C++ programming
- Python scripting
- Basic knowledge in wireless communications

Competences that will be developed:

- Advanced C/C++ programming
- Advanced knowledge in data abstraction and capabilities
- Usage of agile methodologies and standard software management tools (Jira, Confluence, Bitbucket)

4 Project:

Indoor location system based on Ultra-wideband (UWB)

General info:

9 months

4 hours /day

500 € /month

Goal:

Ultra-wideband technology is getting adopted for accurate and precise positioning and different applications that get advantage from its precise distance and angle measurement. The applications to this are diverse and the number of devices that include this technology are growing. The idea that we want to develop in this project is to design, implement and test the simplest UWB setup (in number and complexity of the anchors) that allows an accurate and good coverage 2D positioning of a mobile UWB tag in an indoor environment. Updating it to a 3D environment, with several floors, could be an optional feature.

Tasks:

- Selection of HW platform
- Set-up of the boards and environment
- Design of the simplest system that allows accurate location
- Implementation, test and improvements
- Documentation

Required skills:

- Basic knowledge of wireless communication protocols
- Programming skills
- Basic knowledge of HW architecture and antennas

Competences that will be developed:

- Wireless communication
- Wireless location techniques (ToF, AoA)
- Algorithm creation and debugging
- Continuous improvement cycle
- Use of agile methodologies and standard software management tools (Jira, Confluence, Git, etc)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