

Hands gesture recognition application with GAP8

Internship

GreenWaves Technologies is a fabless semiconductor company based just outside Grenoble, France. We were formed in 2014 with the mission of revolutionizing intelligent sensors and devices. We have developed GAP8, an ultra-low power IoT Application Processor. GAP8 enables devices to interpret and act on image, motion and sound data at energy levels which allow years of operation on batteries bringing low installation and operation costs.

The target of this project is to explore X111 Acconeer Pulsed Coherent Radar Technology for **Hands Gesture Recognition** on GAP8.

Responsibilities:

- Develop low level communication between X111 Radar and Gap8 through SPI.
- Collect data from X111 Radar to create and hand gesture Dataset of some hand gestures (i.e. a wave, a clap, and other distinctive gestures).
- Develop an application in Tensorflow for hands gesture recognition
- Port the final application on GAP8
- Make sure a synthetic documentation is available for further maintenance

Required skills:

- Embedded Software student, Bachelor/Master's degree
- C/C++, Python code proficiency
- Experience with 32-bit microcontrollers and classical interfaces
- [Machine Learning and Tensorflow knowledge very welcome]

Desired skills:

- Machine Learning with Tensorflow
- Strong motivation and taste for code optimization (size and speed)

Employment type: Full - time;

Duration : 6 months;

Location : Villard Bonnot (near Grenoble, France)

Remuneration: 1000 Euros/month + 200 Euros/Month (bonus)

Please send your application to careers@greenwaves-technologies.com