# ESPA

## Software Engineering Internship (XMOSE0205)

### Start date
September 2019

### Duration
6 months

### Languages
Good spoken and written English levels are required (B2 onwards)

### Location

#### Bristol, England
Bristol is the largest city in the South West of England. It has a strong reputation for creativity, digital innovation and social enterprise, and is the home of Oscar-winning Wallace and Gromit and urban artist Banksy. Offering a lively nightlife, bars and restaurants aplenty, musical diversity and many historical sites, in 2017, The Times newspaper voted it 'Best Place to Live in the UK'.

### Are you eligible?
Are you a registered student?
Or
Are you eligible to participate in the Erasmus+ programme?

### Benefits
See website for details of all ESPA benefits. For all internships over 6 months, additional benefits will be paid. Details available at interview.

## Role

This is a fantastic role for an enthusiastic computer science or electronics student, to gain practical experience within this innovative, class leading company. The aim is to combine speech processing and other sensing technologies, such as radar, that will allow simple consumer products to form an awareness of their environment and the people around them. Delivering this technology requires an infrastructure, connecting millions of diverse sensing devices, collating data and delivering it to users and enabling business services. You will contribute to the development of this infrastructure by assisting in the development of embedded applications and working on an ultra-lightweight network stack and cloud service. You will gain an insight into the whole life cycle of product development from concept to delivery and the business strategy behind it. For an individual interested in cutting edge technology, this will provide a great learning and development opportunity.

## Tasks

- Developing a broad base of multi-sensing edge AI technologies, which will be deployed on host's XCORE devices
- Developing the infrastructure, connecting millions of diverse sensing devices, collating data and delivering it to users and enabling business services
- Developing embedded applications and working on an ultra-light-weight network stack and cloud service, directly contributing to a demonstrable product
- Participating in engineering focused project meetings as well as joining strategy meetings, where you will interact with product managers and the business development team

## Desired Skills

- A degree in Software engineering or other relevant
- Proficient in C++ and C and able to demonstrate software best practises
- Familiar with agile development, unit test and regression methodologies and revision control such as Git
- An understanding of internet security methods and authentication
- An appreciation of the differences between developing for complex platforms running an OS and light-weight processors, executing on bare metal with strict memory constraints.

## The Host Company

The host company is a market leader in the supply of voice and music processing and control ICs (integrated circuits), to customers including Harmon, Sony, JVC and JBL. They are currently focusing on the development of their next generation and most comprehensive Voice User Interface (VUI) controller solutions for Internet of Things (IoT) devices. Their far field voice interfaces are designed to be integrated seamlessly into any environment and have already been qualified by Amazon for use with Alexa. With substantial financial backing, this company is set to become one of the major players in the audio field.