

Context:

Image and Pervasive Access Laboratory is a reference laboratory on Assistive technology for aging people in Singapore and nowadays we are enrolled in 2 European projects. We target several goals in our research. The first goal is to develop and deploy continuous and unobtrusive Ambient Assistive Living platforms in real scenarios. The aim is to recognize aging Activities of the Daily Living through semantic and rule-based reasoning with various level of abstraction. The second goal is to move towards distant and large scale deployments of AAL platforms. Therefore, we built UBISmart, an agile framework that has the advantages of using a web platform to manage a large-scale deployment; the versatility and rapidity that this solution offers in a plug & play approach; and facilitates the active participation of end-users. UBISmart is a generic, scalable and intuitive cloud Web-Based AAL framework, which gathers sensitive information from the spaces through simple devices and sensors. This AAL platform converts any environment into a smart space in five (5) minutes to assess dependent people at their homes. Finally, we are now moving from controlled spaces to wide and open spaces in a SmartCity vision.

Description:

In the context of SmartCities, we need to keep collecting data once the person leave the controlled space and move around the city. We aim to merge new information coming from wearables and social networks data with the profile and collected data with our system to deliver improved services to end-users.

We propose a computer science subject with the following description:

- The intern will be in charge of developing algorithms to connect industrial wearables to our cloud platform UbiSMART.
- The intern will be in charge of developing mobile apps (Android, Ionic) to gather embedded sensor data.
- The intern will be in charge of making sense of the collected raw data to improve the assessment.
- The intern will work with multiples teams (Assistive technology, Big Data) to improve his algorithms and feed them with social and human data.
- The intern will work on the Integration of products API into web platforms and mobile Apps.

Keywords:

Ambient Assisted Living, Smart Devices, MobileApp development, REST, Javascript, Semantic Web, Big Data.

Applicant profile

- Knowledge of mobile Apps development (native not necessary, i.e. Ionic)
- Knowledge of SSH, Git, and shell (good practices)
- Knowledge of data mining techniques
- Knowledge of web applications and web services
- Awareness in software architecture and design patterns
- Ability for driving himself his own duty with proactivity and independence
- Excellent English skills
- We are based in Singapore, so be motivated to enjoy multicultural society and living style

Duration:

The internship has duration of 6 months starting from mid February onwards.
(Note that the Student Visa application may take time and then delay the starting date).

Gratification: 1500 SGD per month