

Research Engineer Position
“Database & Server-side applications” - Back-end developer

Supervisors

Mounir Mokhtari – mounir.mokhtari@ipal.cnrs.fr
Antoine de Marassé – antoine.demarasse@ipal.cnrs.fr

Context and Objective:

IPAL research team is looking for a back-end engineer to advance its research on **Inclusive Smart Cities and Digital Health**, within Ubismart framework.

UbiSmart is IPAL’s Ambient Assisted Living (AAL) framework developed using popular web technologies. It is based on Sails.js, a Node.js MVC framework with support of real-time features via socket.io. The goal of the framework is to provide an ICT solution to help elderly and frail people remain independent as well as improve their quality of life.

Responsibilities:

Job description:

- Lead the integration of new sensor technologies to UbiSmart (outdoor beacons, sensor tags, ...)
- Write the web services and APIs used for front-end visualizations and mobile application, including open data sets from public or private sources
- Enable the platform to export DB for data analytics
- Improve the UbiSmart reasoning engine and refine the activity recognition system

Keywords:

Ambient Assisted Living, Server-side applications, Javascript, Node.js, MVC frameworks, Internet of Things, Knowledge Modelling, Semantic Reasoning/Web, REST API, Sensors & Beacons, Dynamic and adaptable systems, Context aware services, Real life deployment

Applicant profile

- Master degree in Computer Science, Engineering
- Strong skills in programming, JavaScript and server-side application: NodeJS, Sails.js MVC
- Knowledge on Wireless technologies: X10-RF, Z-Wave protocol, MQTT Protocol
- Knowledge of SSH, Git, and shell (good practices)
- Knowledge in Front-End: Visualization and Services
- Ability to take initiatives and communicate effectively
- Any experience or interest in Semantic Web, Internet of Things and Sensors will be appreciated
- Excellent English skills, Chinese (mandarin or dialects) is a plus but not required

Position is based in Singapore (One-North/NUS area).

About IPAL:

IPAL is a French-Singaporean joint research laboratory, based in Singapore and formed in 1998 as a special overseas French National Center for Scientific Research laboratory in order to create a local framework for collaborative research projects among CNRS, Institut Mines-Télécom, UPMC Sorbonne Universités, Université Grenoble Alpes, the National University of Singapore — School of Computing, and the Institute for Infocomm Research of the Agency for Science, Technology And Research.