Intern or Master Student (f/m)
@ SAP Research Switzerland, Zurich

SOCRADES: Enterprise 2.0 Mashups with Embedded Devices

SAP RESEARCH

Want to help us develop the Web of Things?

PURPOSE AND OBJECTIVE OF THE JOB

SAP Research Centers support SAP's long-term strategy through technology research. The latest SAP Research Center in Switzerland is located at the campus of ETH Zurich. This center focuses on application-oriented research in the areas of Smart Items and Enterprise Service Architectures. It combines SAP's technological know-how with the expertise of ETH Zurich.

The EU SOCRADES project (www.socrades.eu) gathers different European industrial and academic partners (ABB, Siemens, Scheinder Electric, Jaguar, etc.). Its primary objective is to develop a platform for next-generation industrial automation systems, exploiting the Service Oriented Architecture paradigm both at the device and at the application level.

SAP's role in this project is the design and implementation of an integration architecture to use services from embedded devices and wireless sensor networks (aka real-world services) in high-level business applications, such as SAP Enterprise Resource Planning systems.

EXPECTATIONS AND TASKS OF THE JOB

Our team is composed of researchers with a strong focus on ubiquitous computing for the enterprise. We offer the possibility to extend your practical experience and theoretical knowledge within a highly international team. The master student will be supported by a mentor.

Proposed topics include (to be defined according to interest and skills):
- Architecture for mashups (i.e. end-user composition) of services on embedded devices with Enterprise Applications, based on RESTful and WS-* Web services.
- Lightweight composition of real-world services on mobile devices.
- Integration between RESTful services and WS-* services.
- Systematic comparison of RESTful services and WS-* Web services for enterprise applications.
- Systematic evaluation of the SOCRADES infrastructure.
- Using semantic web technologies (microformats, ontologies, tagging) to search for real-world services.
- Developing prototypes integrating embedded devices and sensors to Enterprise Applications.

EDUCATION AND QUALIFICATIONS / SKILLS AND COMPETENCIES

- Studies in the field of Computer Science, Communications or Electrical Engineering
- Methodical and practical knowledge or strong interests in the some of the following areas:
  - Java Standard and Enterprise Editions.
  - Web Services and Service-Oriented Architectures.
  - Resources and Web Oriented Architectures (REST, Web technologies, etc.).
  - Mobile platforms (iPhone, Nokia, Android, etc.).
- Flexibility and teamwork skills.
- Good English language skills – written and spoken.
- Skills in German or French.

WHAT WE OFFER

- Working Arrangement: Starting date: asap
- Suggested duration: 6 months
- Contract Location: Zurich, Switzerland
- Travel: Occasional travel activities required.
- Contact Person: Dominique Guinard
dominique.guinard’at’sap.com
- Reference Code: ZH_04

THERE’S A PLACE FOR PEOPLE LIKE YOU