Software Developer Position at the University of Haifa, Israel in Medical Informatics

The *Process: Knowledge and Decisions (PKD)* lab at the Department of Information Systems, University of Haifa, Israel is looking for

Software Developer
Working on Medical Informatics for the EU project MobiGuide: personalized clinical-guideline based distributed decision-support systems and body-area networks

**About the Project:**

Mobiguide is a large-scale integrated project (IP) in the Seventh Framework Programme (FP7) of the EU. The project coordinator is Prof. Mor Peleg from the PKD group, Department of Information Systems, University of Haifa. The project's duration is 4 years and is expected to start on October 1st, 2011.

Our consortium includes 13 complementary partners from academia, industry, and healthcare institutions in 5 different countries. MobiGuide will develop a patient guidance system that integrates hospital and monitoring data into a Personal Health Record (PHR) accessible by patients and care providers and provide personalized secure clinical-guideline-based guidance also outside clinical environments. MobiGuide's ubiquity will be achieved by having a Decision Support System (DSS) at the back end, and on the front end by utilizing Body Area Network (BAN) technology and developing a coordinated light-weight DSS that can operate independently.

**About the position**

*Developer position*

The position is a 17 month appointment, starting May 1, 2012 that is potentially renewable up to 41 months based on strong performance.

The purpose of this position is twofold. The developer will develop software for two projects: Knowledge-Data Ontology Mapper (KDOM) and Learning Process Model (LPM) and to provide technical support for the MobiGuide team. He/she will work closely with the post-doc student and one of the PhD students who will work on the KDOM and LPM research.

For KDOM, the software developer will develop service-oriented software that would support mapping of declarative clinical guideline knowledge to data found in a personal health record (PHR) that integrates different types of data, including bio-signal. The mapping will enable the clinical guideline engine that is at the heart of the decision-support system to query the patient data while high-level abstractions are used by the formalized clinical guideline. The work will extend KDOM by supporting new mappings and generating queries that operate on potentially different kinds of databases (relational, XML-based formats), and supporting a service-oriented architecture. Additional tasks include evaluation of different standards for the PHR.
The work on LPM entails development of process-learning algorithms and tools that would be used to study the variations in execution for chronic care processes and their resulting outcomes, and propose clinical guideline improvements for specific patient contexts. These algorithms would extend the work done on LPM, which was developed for the domain of business processes.

The applicant must have an undergraduate degree or advanced degree in Computer Science or Information Systems and have deep experience in one or more of the following areas: machine learning, service-oriented architecture, Java systems development, programming languages, service-oriented architecture, databases, XML-based query languages, software specifications, and ontologies. The candidate should have good communicative skills in English, both in speaking and in writing; Moreover, candidates are expected to realize research ideas in terms of software in such a way that it can be used in industrial settings.

The work will be done in collaboration with the Mobiguide research group. Please send a cover letter, resume, research statement describing past experience in the area of medical informatics and/or software engineering/system analysis, and three professional references to morpeleg@is.haifa.ac.il. Screening of applicants will begin on June 25, 2011 and continue until the position is filled. Background check is required.

The University of Haifa is an equal opportunity employer and actively seeks diversity among its employees. The salaries of software developers at the University of Haifa are regulated by HU's Research Authority and are in accordance of the expertise assumed by the position and the cost of living in Israel.