App development for medical application
Master project at Uppsala University

The Departments of Information Technology and Department of Engineering Sciences at Uppsala University offer a master’s thesis to develop a mobile application to facilitate and simplify communication of relevant data between medical practitioners and their patients.

The contact between patient and medical practitioners is today primarily during physical meetings. Additional communication in between meetings would allow the practitioner to detect changes in the well-being of the patient earlier, to document the evolution of sickness like manic depression, and to make the physical meetings more efficient because data can be collected already prior to the meeting.

The application on the patients’ mobile device should be able to gather information from the patients (e.g., through opportune questionnaires), store the information and communicate the data in a secure fashion to the cloud. Data mining algorithms on the cloud identify anomalies and notify the practitioner. Further, the mobile app should be capable to send reminders to the user and process and illustrate the gathered data.

The mobile app should be adaptable for individual patients and their needs by the practitioner yet, invisible for the patient, relate to clinical terms (e.g., SNOMED IT). For this, an application and/or webpage should be developed through which the practitioner should be able to prepare and customise the application for their patients by loading existing functions (e.g. questionnaires, simple data processing algorithms and communication settings) and modify functions such as questions or set parameters.

Suitable students should have a bachelor degree in IT or engineering. Additional knowledge and experience in the area data security, and medical applications in engineering and IT as well as experience in app programming are highly desirable.

For more information, please contact
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