POST DOCTORAL (RESEARCH) RECRUITMENT

Department of Computer Science, University of Memphis

Wireless Sensors and Mobile Ad Hoc Networks (WiSe MANet) Lab at the University of Memphis invites applications for a

Two Year Postdoctoral Research Position

The successful applicant will be involved in research and development for the NSF sponsored FieldStream project and NIH sponsored AutoSense project. In the AutoSense project, a modern personal wireless sensor network has been developed that human subjects will wear for several weeks at a time in their natural environment to collect continuous physiological measurements across a variety of sensors (e.g., ECG, respiration, skin conductance, PPG, alcohol, skin & ambient temperatures, accelerometers, among others). These measurements are processed in real-time on a smart phone to infer rich contexts such as intensity of stress, incidences of smoking, drug usage, craving, alcohol, and energy expenditure, to highlight some. The AutoSense sensor suite is planned to be used in half a dozen behavioral studies across the nation in collaboration with various behavioral scientists. The FieldStream project addresses the theoretical foundation for field deployable personal sensor networks such as AutoSense so that personalized models can be developed and used to automatically validate data collected in the field, to enable timely detection of behavioral events (such as stress, craving, smoking, etc.), and to optimize sampling and wireless communication to maximize system lifetime.

The selected candidate will work under the supervision of Dr. Santosh Kumar and will have an opportunity to collaborate with world class scientists from multiple universities and multiple disciplines (CS/ECE from CMU, Georgia Tech, UMass, UCLA, Ohio State, and behavioral scientists from Johns Hopkins, Pittsburgh, Minnesota, Memphis, NIDA, and NIAAA). The selected candidate will also have an opportunity to collaborate with scientists and program officers from NIH. The selected candidate will coordinate the work of students and postdocs from the above named institutions on both projects. In addition, the selected candidate will be expected to design new user studies, prepare IRB applications, lead the development/adaptation of mobile phone software used for running the new studies, and prepare manuscripts for publishing the results of these studies.

This position is for 12 months and is renewable for the second year.

Qualifications:
1. The successful candidate will be expected to earn a PhD degree in Computer Science, Computer Engineering, Electrical Engineering or a related discipline from a research university by December 2010;
2. Proven record of outstanding performance in a highly-competitive international research environment demonstrated by consistent publications in top-tier conferences and/or journals as primary author;
3. Experience in human computer interaction study designs, machine learning, and pattern recognition;
4. Experience with wearable sensors and software development on mobile phones is a plus;

To apply, please visit https://workforum.memphis.edu. Completed applications should include a complete CV, two representative published manuscripts, and the names and contact coordinates of 3 references. Additionally, you may drop a line to Dr. Santosh Kumar via email (santosh.kumar@memphis.edu) after having submitted your application to Work Forum.

See the project webpages (http://sites.google.com/site/autosenseproject/ & http://www.fieldstream.org/) for details on the projects. Screening begins immediately. The position may begin as early as Nov 2010.

The University of Memphis is an Equal Opportunity Affirmative Action Employer. Women and minority candidates are encouraged to apply.