Professor Suchi Saria

Assistant Professor
Department of Computer Science
Department of Health Policy & Management
Johns Hopkins University

Discovering vocabulary in clinical temporal data with application to tracking illness severity in infants

Abstract:

Large amounts of data are routinely collected in the Electronic Medical Record yet their use in informing patient care is limited to manual assessment by the caregivers. In this talk, we discuss probabilistic approaches motivated by clinical practice for analyzing continuously measured physiologic data. We develop our models on data collected from instrumenting a neonatal intensive care unit. Based on insights derived from modeling this data, we tackle the application of risk stratification. As part of routine care, every infant at birth is risk stratified based on the Apgar score. We develop a cheap, non-invasive and simple risk stratification tool using markers from physiologic data for predicting infants at risk, dubbed by Science news as the modern electronic Apgar.

About the speaker:

Suchi Saria is an Assistant Professor at Johns Hopkins University within the Schools of Engineering and Public Health. She received her PhD in machine learning from Stanford University with Prof. Daphne Koller. Her research interests span computational modeling of diverse, large temporal data, and in particular those from sensing devices and the electronic health record for improving patient management. Her work on predictive modeling for clinical data from infants has been covered by numerous national and international press sources. She is the recipient of multiple awards including a best student, a best paper finalist, Microsoft Full Scholarships, an NSF Computing Innovation fellowship, a Google Research award and a Gordon and Betty Moore foundation award.

Date : 2 Apr 2014 (Wednesday)
Time: 11:30 a.m. – 12:30 p.m.
Venue: Room 513, William M. W. Mong Engineering Building
★ ★ ★ ALL ARE WELCOME ★ ★ ★

Host: Professor Helen Meng (hmmeng@se.cuhk.edu.hk)
Department of Systems Engineering and Engineering Management, CUHK