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CSL AUDITORIUM (B02)

:WHEN SHERLOCK HOLMES CAN'T SOLVE THE PROBLEM... CALL WATSON.

MURTHY DEVARAKONDA
PRINCIPAL INVESTIGATOR, WATSON
EMRA PROJECT

IBM RESEARCH

Do you know that over 30 hours of video is uploaded every minute on YouTube? And that over 5000 articles are published every year on the P53 [the cancer killer gene]? As data grows at a hyper-exponential rate, knowledge professionals such as physicians find it impossible to find answers they are looking for in such a vast amount of data [mostly unstructured, plain text] in a timely manner. At IBM Research we are adapting and advancing the Jeopardy!-winning Watson to address these cognitive challenges of physicians, jointly with Cleveland Clinic and Veterans Health Administration. In particular, one application provides insights into a patient medical record at the point of care, and another application interacts with users in natural way while reasoning about a complex medical question. This talk takes you through this journey while discussing the power of Watson and many research challenges ahead of us.

Murthy Devarakonda is the Principal Investigator of the Watson EMRA project at IBM Research. The goal of the project is to study how Watson's natural language processing and semantic reasoning can be applied to meet the cognitive challenges of physicians in using patient medical records. Murthy's long and multidisciplinary research at IBM involves transforming results of data analysis into foundational observations which lead to new applications and system designs. Prior to joining the Watson team, he applied this methodology to create transformative designs and algorithms in warehouse scale data center optimization, cloud computing, and distributed systems. Murthy is a frequent invited/keynote speaker at conferences and academic venues, and often presents the latest Watson innovations to IBM clients. He is an ACM Distinguished Engineer. Visiting UIUC is home coming for Murthy - he received Ph.D. in computer science from UIUC and proud of it.