



Distinguished Speaker Series
Fri. 12/09/11, 10am–11am
90 Snell Library

What Is Watson?

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Host: Gunar Schirner, David Kaeli

Abstract:

The TV quiz show Jeopardy! is famous for giving contestants answers to which they must supply the correct questions. Contestants must be fast, with an almost encyclopedic knowledge of the world and the ability to figure out clues that are vague, involve double meanings, and frequently rely on puns. Early this year, Jeopardy! aired a match involving the two all-time most successful Jeopardy! contestants and Watson, an artificial intelligence system designed by IBM. Watson won the Jeopardy! match by a wide margin. In doing so, it brought the leading edge of computer technology a little closer to human abilities. This presentation will describe the supercomputer implementation of Watson used for the Jeopardy! match and the challenges that had to be overcome to create a computer capable of accurately answering open-ended, natural-language questions in real time—typically in under 3 seconds.

Bio:

Dr. Perrone is an IBM Master Inventor with over 20 years of experience in computer science, including 7 years in high performance computing and 5 years in seismic imaging. He is the manager of the IBM Research Multicore Computing Department, which has the mission of exploring the strengths and weaknesses of multicore processors to help guide supercomputing architectural design and to aid customers in designing novel supercomputing algorithms. His recent projects cover a variety of HPC workloads, including seismic imaging, reservoir modeling, computational fluid dynamics, business analytics, graph algorithms, network intrusion detection, financial data stream processing, high-speed text indexing, image processing, carbon sequestration and bioinformatics. His research includes algorithmic optimization for a variety of multicore processors, parallel computing and statistical machine learning. He received his PhD in Physics from Brown University.

For questions please contact Asst. Prof. Gunar Schirner (schirner@ece.neu.edu).