WPUNJ Computer Science Society of SGA and ACM Student Chapter Presents

2010-2011 CS Student Lecture Series: Lecture #2
FREE TO ALL STUDENTS

Thursday April 28, 2011
12:30—2:00 PM
Atrium Auditorium Y144, lecture
Reception to follow in the Atrium Faculty Lounge Y126

Jeopardy! - The Watson Challenge

By
Tom Mitchell

WebSphere Account Manager
IBM
1985 Computer Science Graduate, WPUNJ

For more information contact:
Gutierrezb@student.wpunj.edu or,
landonw@student.wpunj.edu

Funded by Student Government Association
The user centered interfaces group at Lockheed Martin's Advanced Technology Laboratories (LM ATL) specializes in the design and development of novel, intuitive user interfaces for advanced technologies. Over the past decade, this group has been involved in several cutting edge technology research efforts leading to the development of field-testable technology prototypes featuring capabilities such as spoken language understanding, mixed-initiative interaction, and real-time monitoring of users' cognitive states. To succeed in these efforts, the user centered interfaces group developed and refined IDEAS (Interaction Design and Engineering for Advanced Systems), a methodology for producing systems and software that incorporate human operators. This iterative, interdisciplinary approach combines standard best practices from User-Centered Design (UCD) theory with a cutting-edge systems engineering approach to account for human cognitive and task processes not just in the user interface but throughout the design of the system architecture and Human-Computer Interface. While UCD practices have traditionally focused on methods to understand user needs, IDEAS ensures that user functional and cognitive requirements underlie design and development throughout the entire systems engineering process.

This seminar will characterize the IDEAS process in detail, with examples from multiple application domains and programs. We will illustrate re-engineering pitfalls that IDEAS can help prevent and potential benefits it can provide for system functionality, usability, and adoption.
Tom Mitchell is currently a WebSphere Account Manager with the IBM New York Area Business Unit. He has responsibility for sales of WebSphere products at core IBM clients in the Financial Services industry.

A 1985 Computer Science graduate of William Paterson College, Tom has been in the IT industry for over 25 years in a variety of roles including development of mainframe, client/server and web-based applications, design and architecture of client/server and web-based applications, system testing and quality analysis, project management and technical sales. In addition to his 22 years at IBM, Tom has worked in Investment Banking, small software startups, and as an independent consultant.

Tom is co-author of Professional Java Fundamentals (WROX Press, 1996) as well as many magazine and internet articles on contemporary IT topics.

The Title

Jeopardy! - The Watson Challenge

The Abstract

In the tradition of IBM's grand challenges such as Deep Blue with chess and Blue Gene with the human genome, Watson is the next scientific breakthrough with natural language processing on Jeopardy. The game of Jeopardy! makes great demands on its players – from the range of topical knowledge covered to the nuances in language employed in the clues. Can the analytical power of a computer system – normally accustomed to executing precise requests – overcome these obstacles? Can the troves of knowledge written in human terms become easily searchable by a machine in order to deliver a single, precise answer? Can a quiz show help advance science?

This session will provide an overview of the process and challenges of building Watson, as well as a discussion of what the implications of Watson are for technology, business and society.