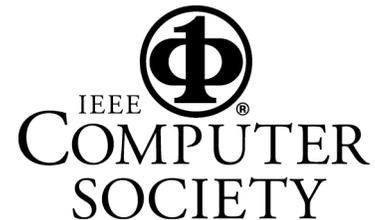
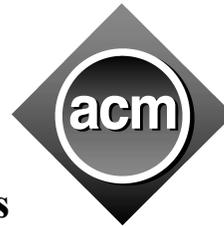


PRINCETON ACM / IEEE-CS CHAPTERS
NOVEMBER 2014 JOINT MEETING



Methods and Processes for Ensuring the Performance of Software Systems

Performance is an essential and desirable attribute of any software system. Poor performance is a frequent cause of project failure, and can render a system difficult and undesirable to use. Despite this, it is often treated as an afterthought at many stages of the software lifecycle. The painful rollout of a well-known public web-based system in October 2013 underscores the resulting perils. In this talk, we discuss the role of various performance engineering techniques in ensuring the suitable performance of a software system. The choice of performance metrics is crucial to the development of testable performance requirements. The performance requirements have a big influence on the architectural and technology choices for implementation. Performance models can aid in the planning of performance tests to verify that performance requirements have been met, while informing design and architectural choices that affect system performance and scalability. In this talk, we describe a performance engineering process and its role in the software lifecycle. We illustrate the talk with examples of the interpretation of performance test data in the context of performance models.

André Bondi is a Senior Staff Engineer working in performance software and systems engineering at Siemens Corp., Corporate Technologies in Princeton. His book on performance engineering, *Foundations of Software and Systems Performance Engineering: Process, Performance Modeling, Requirements, Testing, Scalability, and Practice* was published by Addison-Wesley in August 2014.

Dr. Bondi has worked on performance issues in domains of application, including telecommunications, conveyor systems, financial systems, medical systems, railway control, building surveillance and management, and network management. He has developed and taught corporate training courses on performance requirements and performance engineering. Just prior to joining Siemens, he held senior performance positions at two startup companies. Before that, he spent more than ten years working on a variety of performance, standards, and operational issues at AT&T Labs and its predecessor, Bell Labs. He taught courses in performance, simulation, operating systems principles, and computer architecture at the University of California, Santa Barbara for three years. Dr. Bondi holds a Ph.D. and an M.S. in computer science from Purdue University, an M.Sc. in statistics from University College London, and a B.Sc. in mathematics from the University of Exeter. Dr. Bondi holds nine US patents.

Date:	Thursday, November 20, 2014, 8:00 pm. (Refreshments and networking at 7:30 pm.)
Place:	Small Auditorium, Room CS 105 Computer Science Building, Princeton University
Information:	Dennis Mancl (908) 582-7086
On-line info:	http://PrincetonACM.acm.org

All Princeton ACM / IEEE-CS meetings are open to the public. Students and their parents are welcome. There is no admission charge, and refreshments are served.

A pre-meeting dinner is held at 6:00 p.m. at Ruby Tuesday's Restaurant on Route 1. Please send email to princetonacm@acm.org in advance if you plan to attend the dinner.