## Computer Science Seminar Series – Spring 2024

## Building the Computational Infrastructure of Reality: Experiences with the Internet of Things

Wednesday, May 1<sup>st</sup>, 2024, 12:00pm - 1:00pm PST Time

Room 8-302.

## **Abstract**

The Internet of Things (IoT) is a rapidly approaching technological change that envisions ubiquitous and network-accessible digital instrumentation and actuation of literally every "thing" we encounter in everyday life. Like the World Wide Web (now simply called The Internet) before it, IoT will likely represent another societal sea change as objects in the physical world become network-enabled so that they can communicate and interact with people and, autonomously, with each other. This technological vision also carries with it significant new challenges. With estimates of between 50 billion and 1 trillion network-connected IoT devices in the next 20 years, the energy efficiency of these devices and the network technologies that interconnect them is paramount to their utility. Moreover, the current Internet architecture, which is evolving to accommodate cloud computing, will require substantial additional innovation and augmentation before IoT will come to complete fruition.

## <u>Bio</u>

Dr. Rich Wolski is a Professor of Computer Science at the University of California, Santa Barbara (UCSB) where he holds the Duval Presidential Chair in Energy Efficiency. Having received his M.S. and Ph.D. degrees from the University of California at Davis (while a research scientist at Lawrence Livermore National Laboratory) he has also held positions at the University of California, San Diego, and the University of Tennessee, the the San Diego Supercomputer Center and Lawrence Berkeley National Laboratory. Rich has led several national scale research efforts in the area of distributed systems and is the progenitor of the Eucalyptus open source cloud project.



Dr. Rich Wolski CS Professor UC, Santa Barbara

Hosted by: Prof. Ericsson Marin

