

Challenges and pitfalls of automatic learning in the Big Data Age

Mireille Boutin

School of Electrical and Computer Engineering, Purdue University, USA

Being able to automatically learn from large data sets is viewed by many as a key to solving an ever increasing number of unsolved engineering problems such as automatic Improvised Explosive Device (IED) detection, and baggage screening. The widespread availability of different sensing modalities, which allows us to obtain a large amount of redundant data, combined with the computational power of today's computers, offers the promise of near perfect accuracy at real-time speeds. In this talk, I will summarize some of the computational and conceptual challenges that must be surmounted before this promise can be fulfilled.