Deep Learning and its Impact on Engineering

Deep neural networks are now used for tasks ranging from ‘soft sensors’ to face recognition and machine translation. This talk will explain what deep learning is, how it differs from earlier neural networks, and how it is changing what engineers do.

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Dr. Lyle Ungar is a Professor of Computer and Information Science at the University of Pennsylvania, where he also holds appointments in multiple departments in the Schools of Business, Medicine, Arts and Sciences, and Engineering and Applied Science. Lyle received a B.S. from Stanford University and a Ph.D. from M.I.T. He has published over 250 articles, supervised two dozen Ph.D students, and is co-inventor on ten patents. His current research focuses on developing scalable machine learning methods for data mining and text mining, including analysis of social media to better understand the drivers of physical and mental well-being, and deep learning methods for natural language processing.

Key Words:
Deep neural networks, data mining, text mining, social media, deep learning, natural language processing