Examples of Machine Learning R&D at Google

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Abstract: Machine learning and specifically neural networks have enjoyed a massive come-back over the last 10 years. While neural networks were virtually ignored for many years by research institutions and companies alike they have now become main-stream in many areas and continue to contribute to large improvements in speech recognition, speech synthesis, translation, general NLP tasks, image recognition, recommendation systems etc. This talk will highlight some of the areas where neural networks and general machine learning have made significant contributions at Google, in research and in products. I will try to explain Google's recent history for some of these topics and how neural networks helped to improve them, and present and discuss the main ideas, concepts and processes of what lead to the improvements. Finally, I will try to show how Google is creating the work environment to make progress in these very-high-tech areas and discuss my view of some of the future of machine learning applications.

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