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Fear Not, or, the impressive limitations of modern AI

It has been hard to miss that there are rapid developments in the field of artificial intelligence -- not a day can go by without yet another, even more impressive result of some AI-based system solving some task with human-like performance or better. In recent years we saw AI beating humans at games like chess, go, and StarCraft, matching the best human professionals in recognizing cats and tumors, in translating texts, and answering questions, and besides endless promises of self-driving cars, we most recently read about AI writing eerily coherent texts and generating professionally looking images based on just a few keywords. It makes you wonder, how long do we have before we as a species are superseded altogether? In this talk I will pull back the curtain of modern AI and provide a reality-check. I will seek to explain how AI works, when it works, why modern AI has trouble recognizing cows on a beach, does not understand the concept of blue block on a red block, and why for a very long time to come we will only see (truly) self-driving cars in science-fiction movies.