Chez Pierre

Chez Pierre Seminar

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"Thermodynamics and Machine Learning"

Over the years, many connections have been made between machine learning and physics. By viewing learning through a principally representational and information theoretic lens, deep analogies can be made between a wide class of existing and popular modern machine learning objectives (e.g. bayesian neural networks, variational autoencoders, variational information bottleneck classifiers) and Thermodynamics. In this talk, I will motivate this analogy, compare to previous attempts to unify learning and physics, and explore just how deep the analogy goes.