

Download Stochastic Learning And Optimization

Stochastic optimization (SO) methods are optimization methods that generate and use random variables. For stochastic problems, the random variables appear in the formulation of the optimization problem itself, which involves random objective functions or random constraints. The choice of optimization algorithm for your deep learning model can mean the difference between good results in minutes, hours, and days. The Adam optimization algorithm is an extension to stochastic gradient descent that has recently seen broader adoption for deep learning applications in computer vision and natural language processing.

Abstract: We introduce Adam, an algorithm for first-order gradient-based optimization of stochastic objective functions, based on adaptive estimates of lower-order moments.

Getting Started¶ These tutorials do not attempt to make up for a graduate or undergraduate course in machine learning, but we do make a rapid overview of some important concepts (and notation) to make sure that we're on the same page. - Stochastic Learning And Optimization