Modeling Machine Learning

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What do machines learn, and why? To answer these questions we import models of human cognition into machine learning. We propose two ways of modeling machine learners based on this join: feasibility-based and cost-based machine learning. We evaluate and estimate our models using a deep learning convolutional neural network that predicts pneumonia from chest X-rays. We find these predictions are consistent with our model of cost-based machine learning, and we recover the algorithm's implied costs of learning.

**Url:**<https://www.nber.org/papers/w30600>