

PLAYING CARDS

Machine learning (ML) has gained tremendous traction in research and industry over the past few years. Its progress has enabled the creation of practical cutting-edge Al applications. Once available exclusively to scientists, today ML is achievable by a much broader audience of software architects and engineers. In fact, the practice of ML is so advanced that some algorithm results look like "magic," even for experienced practitioners.

But how do we design such systems? Best practices in software architecture provide us with robust methods to analyze requirements and create architecture designs that predictably satisfy business and system needs. Inspired by attribute-driven design (ADD) and Smart Decisions (a software architecture design game for data), the authors are happy to introduce a new version of the game focused on designing ML systems.

Use this game to analyze business and technical requirements for state-of-the-art ML systems, and select the best matching algorithms for further validation using rapid prototyping techniques.

Visit <u>smartdecisionsgame.com</u> to find more about the ML card game.

CARDS BACK LEGEND

The cards are divided into three groups: Problems, Algorithm Families and, Algorithms:

Problem: a category of tasks that can be solved using ML; they differ in the desired output of a ML system

Algorithm Family: a group of algorithms united by a common approach to the generalization of data dependencies

Algorithm: a specific ML algorithm with its pros and cons

