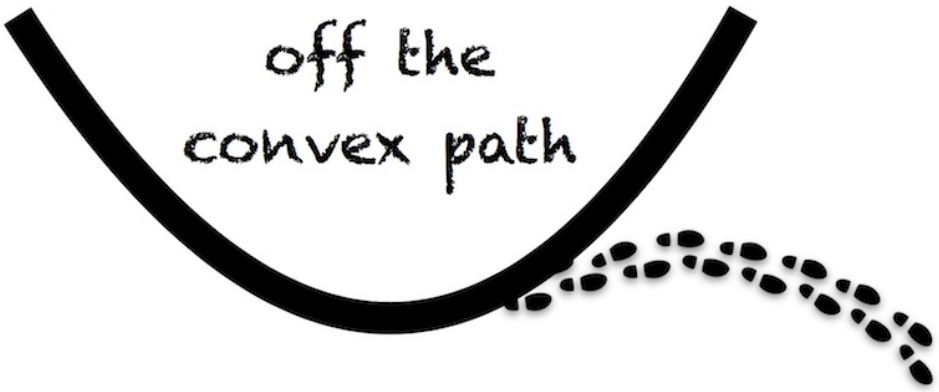

Escaping from Saddle Points

Rong Ge · Mar 22, 2016 · 13 minute read

Convex functions are simple — they usually have only one local minimum. Non-convex functions can be much more complicated. In this post we will discuss various types of *critical points* that you might encounter when you go *off the convex path*. In particular, we will see in many cases simple heuristics based on gradient descent can lead you to a *local minimum* in polynomial time.

Various Types of Critical Points