Hacking Models with Python

Although there are several data mining tools in python, you can use them to deal with almost every kind of data (numeric, text, image, audio, …) you would meet. Besides, there are also lots of modeling tools in python, you can use them to build the FIRST LIGHTING MODEL to solve the problems.

However, if you want to solve problems deeply, most of time, you need to write down the customerized models and solve them by yourself. Instead of using fast modeling tools, you need to know more about the essential things in modeling:
- What is a model ?
- How models solve your problems ?
- What is the connection between models and data ?
- What is the important data ? important model ?

I deeply believe … The more the connection between models and data you know, the deeper the problem you can solve.

Outline:
- What is Modeling ?
- Data, Model, Evaluators
- Direct Problem: Data + Evaluators => Model
- Inverse Problem: Data + Models => Evaluator
- Hacking Models with Metric Learning
- Data as a Model & Model as a Data
- Duality between Dimension Reduction and Clustering