Class 3 overview: 8 Feb

Carry-forwards from last class

1. Toolchain recommendations, preferences

First hour

Any urgent concerns, announcements

Review of Probability HW2

Review of Linear Alg HW2

Second hour

Linear Algebra 3: Gaussian elimination, LU decomposition, four subspaces, Inverses

Third hour

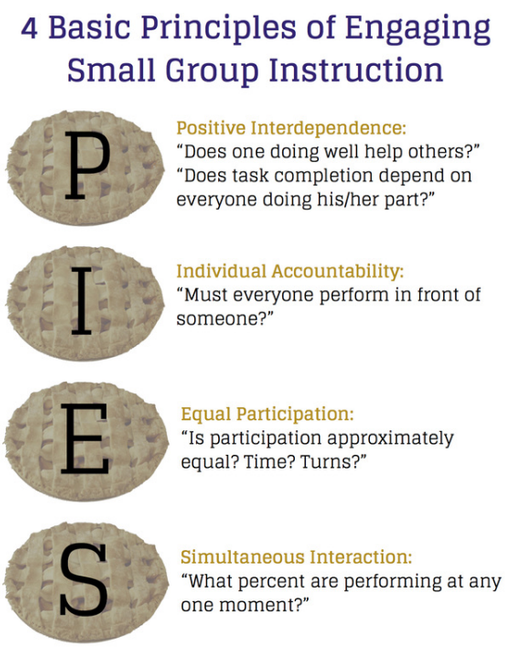
Probability 3:Random variables, Discrete Distributions, Expectation

Fourth hour

Demonstration of linear algebra and probability notebooks.

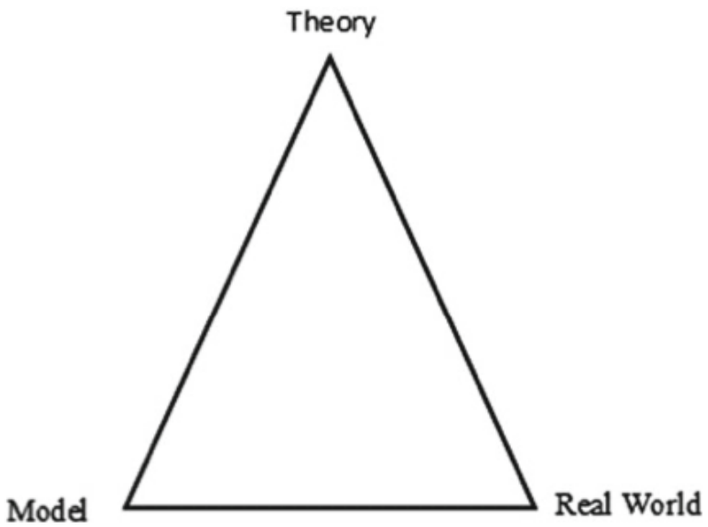
Slides — background on the area:

Class teamwork

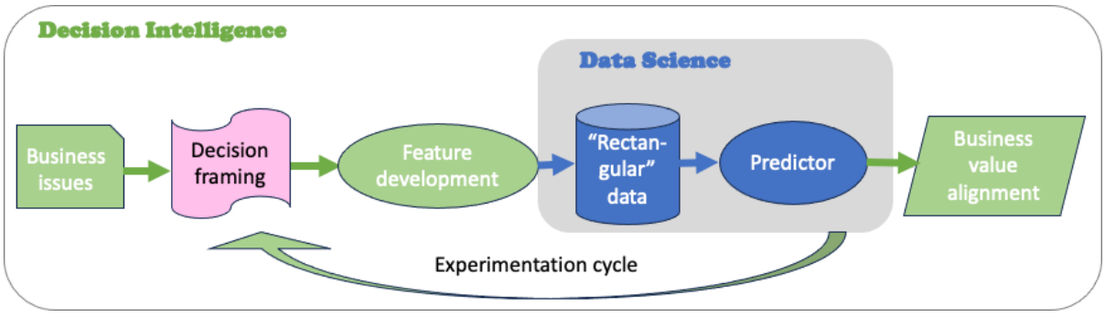


1. Models, Theories, and Data

Fig. 1.1 Scientific triangle: the complete solution of a scientific problem is obtained if we have a theoretical model and a mathematical model that explain and quantify the real-world phenomenon under investigation



How is ML different than conventional statistics?



Assignments

Linear Algebra HW3

- readings: Read Strang, ch 1.4- 1.6 & 2.2 - 2.4, 2.6

Probability HW3

- readings: Evans, Ch 2.1, 2.2, 2.3