Machine Learning with Python

What is Machine Learning

- ▶ Machine Learning is a discipline involving algorithms designed to find patterns in and make predictions about data.
- ▶ It is nearly ubiquitous in our world today, and used in everything from web searches to financial forecasts to studies of the nature of the Universe.

What is Machine Learning

- ▸ Machine learning is a type of artificial intelligence (AI) that provides computers with the ability to learn without being explicitly programmed.

- ▸ Machine learning focuses on the development of computer programs that can teach themselves to grow and change when exposed to new data.

What is Machine Learning

- The process of machine learning is similar to that of data mining. Both systems search through data to look for patterns.

- However, instead of extracting data for human comprehension – as is the case in data mining applications – machine learning uses that data to improve the program's own understanding.

- Machine learning programs detect patterns in data and adjust program actions accordingly.

Recommender Engines

Facebook's Newsfeed

- For example, Facebook's News Feed changes according to the user's personal interactions with other users.

- If a user frequently tags a friend in photos, writes on his wall or "likes" his links, the News Feed will show more of that friend's activity in the user's News Feed due to presumed closeness.