

RL in Finance and Retail Industries

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Stanford University

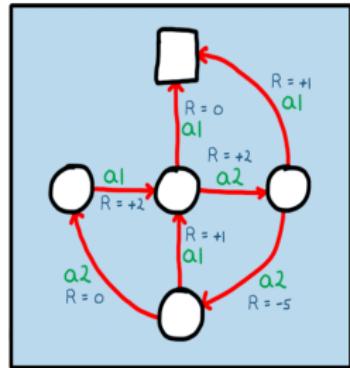
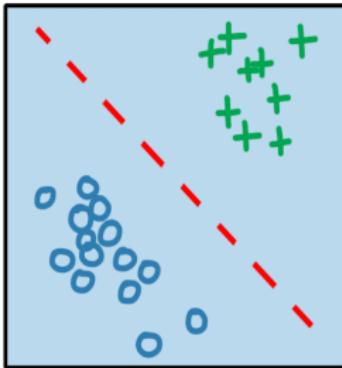
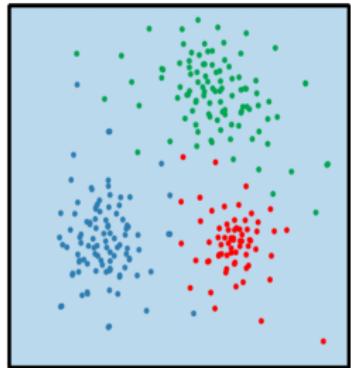
Machine Learning Types

machine learning

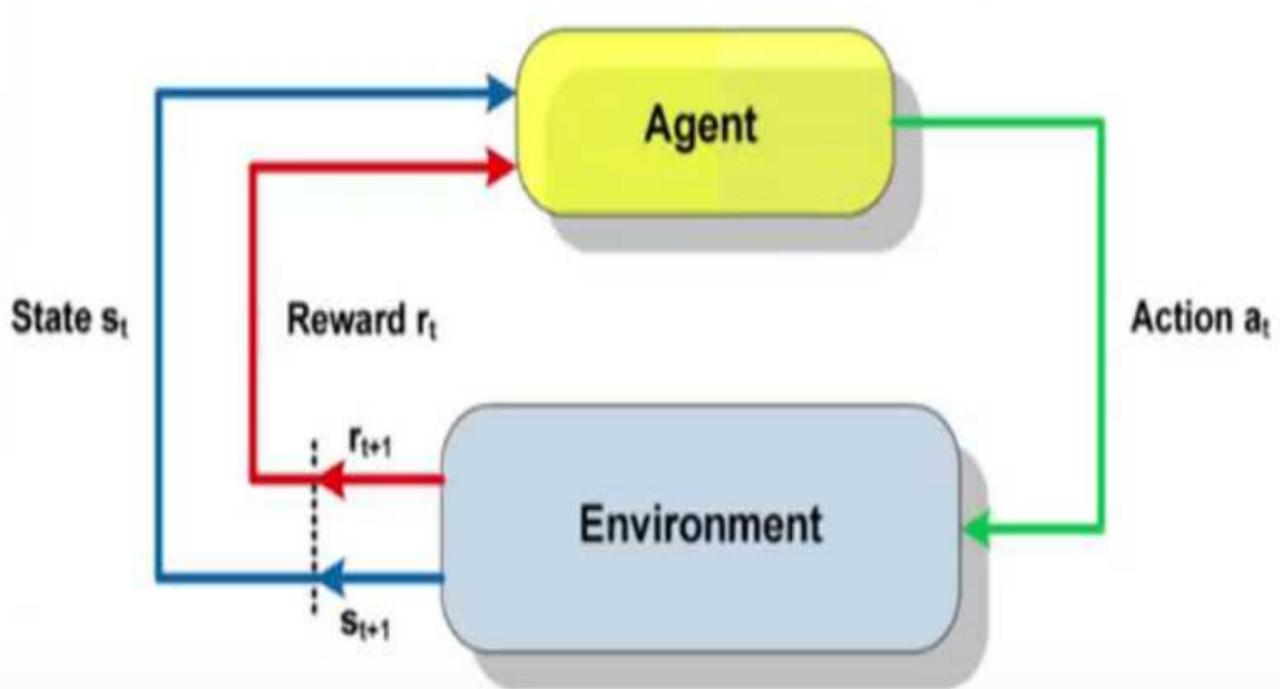
unsupervised
learning

supervised
learning

reinforcement
learning



RL Process - Actions maximizing Returns in each State



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- Strategy to win an election (highly complex)

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- To resolve both curses effectively, we need RL

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- Deep Neural Networks for function approx. was RL’s game-changer

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- **Promise of modern A.I. is based on success of RL algorithms**
- Agents that efficiently adapt to changing circumstances
- Sequentially optimizing to achieve business goals
- Possibilities in Finance and Retail industries are endless

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- Consumption decisions are about spending now or later

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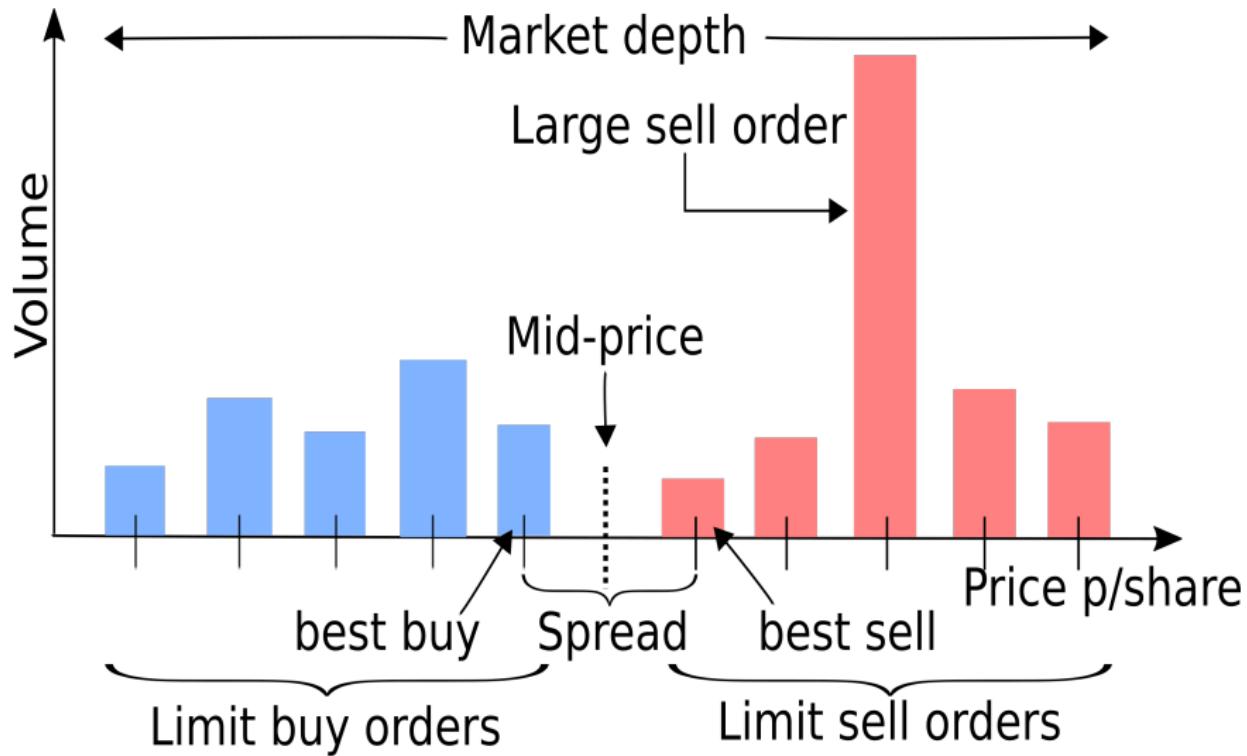
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- *Model*: Career uncertainties, Asset market uncertainties

Trading Order Book - various applications of RL



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