Course Materials

https://github.com/ADGEfficiency/dsr_rl

google `dsr_rl`

- lecture notes hosted on GitPages (`PITCHME.md`)
- practical work - using an existing reinforcement learning library to run experiments.
- introduction to tensorflow and python tricks notebooks

Agenda - Today

today - morning

one - background & terminology

two - introduction to reinforcement learning

three - value functions & DQN

today - afternoon

DQN practical

Agenda - Tomorrow

tomorrow - morning

four - improvements to DQN

five - policy gradients & Actor Critic

six - AlphaGo & AlphaGo Zero

seven - practical concerns

eight - a quick look at the state of the art

tomorrow - afternoon

Misc advice + portfolio projects

About Me

Education

B.Eng Chemical Engineering

MSc Advanced Process Design for Energy

DSR Batch 9

Industry

Energy Engineer at ENGIE UK

Energy Data Scientist at Tempus Energy

Goals for today and tomorrow

Introduction to **concepts, ideas and terminology**

Familiarity with important literature

Experience with running reinforcement learning experiments

Guidance on reinforcement learning project ideas

Working with existing code bases

Goals for today and tomorrow

To really learn RL, you will need to dedicate significant amount of time (same as if you want to learn NLP, convolution, GANs etc)

These slides are designed as both a **future reference** and slides for today

Where to go next

Textbook Sutton & Barto - An Introduction to Reinforcement Learning (2nd Edition is in progress)

Video lectures David Silver's 10 lecture series on YouTube

Literature review Li (2017) Deep Reinforcement Learning: An Overview