

## Course Materials

[https://github.com/ADGEfficiency/dsr\\_rl](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 - morning

one - background & terminology

two - introduction to reinforcement learning

three - value functions & DQN

### today - afternoon

DQN practical

### 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

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