**Grupo Turing**

**Reinforcement Learning**

Cronograma 2020

# Recursos Gerais

* Curso de Stanford (CS234): [slides](https://web.stanford.edu/class/cs234/schedule.html), [vídeos](https://www.youtube.com/playlist?list=PLoROMvodv4rOSOPzutgyCTapiGlY2Nd8u)
* [Spinning Up in Deep RL](https://spinningup.openai.com/en/latest/index.html) (openai)
* Livro do Sutton e Barto: no [drive](https://drive.google.com/open?id=1ObeP1-i5QAXo2lTgjy5VlD1bTvCxvtGk&authuser=0), “RLBook2018”

# Aula 1: Deep Q-Networks (DQN)

* Responsáveis:
  + Will e Gustavo
* Assuntos:
  + **Experience replay**
  + **Fixed Q-Targets**
  + Double DQN
  + Prioritized Replay
* Materiais:
  + Aula 6 de Stanford (CS234)
  + Slides de Function Approximation: no [drive](https://drive.google.com/open?id=1FMDvfG7jdywE1mvHZhNnjbD1bKUWXHJZ&authuser=0)
  + Cartpole com DQN: [medium](https://towardsdatascience.com/cartpole-introduction-to-reinforcement-learning-ed0eb5b58288)

# Aula 2: Prática de DQN + Bibliotecas

* Tarefa:
  + Flappy Bird (<https://gym.openai.com/envs/FlappyBird-v0/>) com DQN e TF
  + Pensar numa ideia final de projeto (virtual/físico)
* Materiais:
  + [medium](https://towardsdatascience.com/cartpole-introduction-to-reinforcement-learning-ed0eb5b58288)
* Responsáveis:
  + Matsumoto (ver bibliotecas)

# Aula 3: Policy Gradient

* Responsáveis:
  + Bernardo e Edu

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