DS2500
4/11 - Fri :)

Admin

- secondchance dive 9pm tonight!
- project deadline 4/15 9pm
  - ↳ group: report, abstract
    indv: reflection
- XC 4/18, 4/23, 4/24 8-10am
- Please do TRACE :)

Agenda

1. Probability Distros
2. Simulations
3. Python
4. TRACE!! :)

} ⇝ slides in jcimpa.com

1. Probability Distributions

↳ probabilities → expected value → simulation
{theory} {realistic}

experiment: infinitely repeatable
well defined set of outcomes
ex: draw a card
outcomes: {red, black}

random variable: numeric value
assoc. with at come of experiment
ex: draw 10 cards
RV: # red cards of 10

prob distr. single draw
.5 red, .5 black
↳ #red cards in one draw $(.5)(1) + (.5)(0) = .5$

expected value: use prob distro to
compute the avg random variable
if we repeat the experiment to ∞

ex: draw 10 cards $EV(\#\text{red cards}) = 5$

Prediction model: Start with prob distr
Simulate real life result, lots of times (n)
n outcomes, we care about all of them

monte carlo simulation

joinpd.com
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