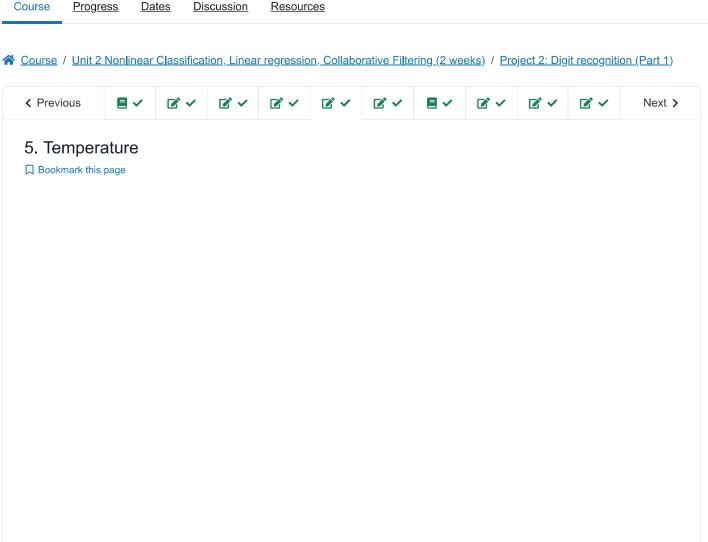
Course



Project due Oct 21, 2020 05:29 IST Completed

We will now explore the effects of the temperature parameter in our algorithm.

You will be working in the files part1/main.py and part1/softmax.py in this problem

## Effects of Adjusting Temperature

0.0/1.0 point (graded)

Explain how the temperature parameter affects the probability of a sample  $x^{(i)}$  being assigned a label that has a large  $\theta$ . What about a small  $\theta$ ?

✓ Larger temperature leads to less variance
☐ Smaller temperature leads to less variance ✔
Smaller temperature makes the distribution more uniform
v

### **Solution:**

Smaller temperature parameter means that there is less variance in our distribution, and larger temperature, more variance. In other words smaller temperature parameter favors larger thetas, and larger temperature parameter makes the distribution more uniform.

Submit You have used 3 of 3 attempts

• Answers are displayed within the problem

## **Reporting Error Rates**

2.0/2.0 points (graded)

Set the temperature parameter to be 0.5, 1, and 2; re-run run\_softmax\_on\_MNIST for each one of these (add your code to the specified part in **main.py**).

Submit You have used 1 of 20 attempts

**1** Answers are displayed within the problem

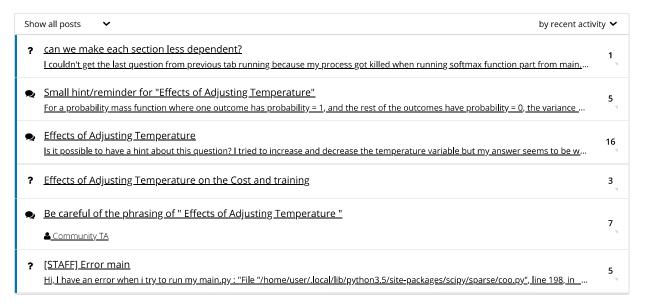
Return the temp\_parameter to be 1 before moving on to the next section.

## Discussion

**Hide Discussion** 

**Topic:** Unit 2 Nonlinear Classification, Linear regression, Collaborative Filtering (2 weeks):Project 2: Digit recognition (Part 1) / 5. Temperature

#### Add a Post



© All Rights Reserved



# edX

<u>About</u>

<u>Affiliates</u>

edX for Business

Open edX

Careers

News

# Legal

Terms of Service & Honor Code

Privacy Policy

**Accessibility Policy** 

**Trademark Policy** 

<u>Sitemap</u>

## Connect

Bloa

Contact Us Help Center Media Kit **Donate** 













 $\ensuremath{\texttt{©}}$  2020 edX Inc. All rights reserved. 深圳市恒宇博科技有限公司 <u>粤ICP备17044299号-2</u>