# CSS01 – NumPy

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### **Updates:**

- All in-class code and lecture slides can be found on GitHub
  - https://github.com/JohnSerences/CSS01 W2020

• Final is due Weds 03.18.2020 @ 8AM

#### Final exam

- Academic Integrity on the final: while I encourage you to study the lecture notes and previous problem sets together in groups to help each other out, <u>you must work on the final exam questions on your</u> own.
- Read directions carefully.
- Importing modules: For the final, you may import "pandas" and "files" (from google.colab) and "random".
- Do not use functions from any other libraries.
  - One exception is uploading and reading in csv/json files if you do use another module for this, please comment the code carefully

#### Final Exam

- Due 03.18.2020
- Email us your .ipynb file, go to colab, file menu, "Download .ipynb".
- Important: the subject line in the email should be "Final Exam CSS1". With Final then space then Exam then a space then CSS1.
  - The TAs will set up an email filter to sort all of these emails, so this step is critical to make sure that your exam is turned in.
- You must also send a copy of your final to me at <a href="mailto:jserences@ucsd.edu">jserences@ucsd.edu</a> by the due date/time.

## Q2B on final

• Use sample standard deviation...

• N-1 in the denominator (not N)

### Q5 on final

- For mean temp deviation, can use either the GCAG or the GISTEMP data sets (or you can use the mean of the GCAG and the GISTEMP data).
- Important: just tell us, in a comment or markdown cell, what you are doing so that we know your thought process!

#### Piazza + Canvas

- Please make sure you are monitoring Piazza
- I am trying to dual-post important general answers on both piazza and canvas, but its much easier and faster to respond on piazza
- I am responding to specific questions as soon as I can, and if I think the question is of general interest, I am posting a pinned note
- Example: Q3 and RMSE...

# Pandas and moving average (Q4c, 4d)

- As mentioned in class on Monday, there are many ways to implement this kind of function...
- Questions about using pandas.rolling() method (or the deprecated rolling\_mean() method)
- You may be able to make this work with some wrangling, but be careful with NaNs!

## Some shortcut keys (to start with)

- On a PC cntrl = control key, on Mac cntrl = "apple" key
  - New cell above: cntrl+M A
  - New cell below: : cntrl+M B
  - Convert to code cell: cntrl+M Y
  - Convert to text cell: cntrl+M M
- Run a cell (execute code or display markdown): cntrl+ENTER