# CS 24000 L04 Week 3

fscanf and hw2

#### fscanf(FILE \* stream, char \* format, [...])

- Stream is a file pointer opened by fopen("filename", "ro"/"w+")
- Format is a format string:
  - %d to match an integer
  - %f to match a float
  - %s to match a string, up to whitespace
  - %[^l] to match a string, up to a | (pipe), can be any character
    - Does not include the character
    - Ex: %dl%[^l]l%d will match an integer, a pipe, a word, a pipe, and another integer
  - \* to ignore input
    - Ex: %\*d %s will discard an integer, read a string
- Return value is number of elements read

## HW2 fscanf usage

Fred Murphey

12/9/2019|Instagram|3:21:3

12/11/2019|Whatsappl1:45:31

12/9/2019|Facebook|0:28:37

Format string?

## HW2 fscanf usage

Fred Murphey

12/9/2019|Instagram|3:21:3

12/11/2019|Whatsapp|1:45:31

12/9/2019|Facebook|0:28:37

Format string?

"%d/%d/%d|%[^|]|%d:%d:%d\n"

#### **Floating Point Shenanigans**

- You may have noticed small rounding errors in your programs. Why?
  - Floating points are still just binary
  - Representing decimals in binary means approximating using fractions
    - While integers are 1, 2, 4, 8... binary fractions are ½, ¼, ½.... You can see the problem
  - Example:
  - To get around this:
    - Use integers until the final step of division
    - We will grade to the nearest hundredth (1/100), so only two decimal places