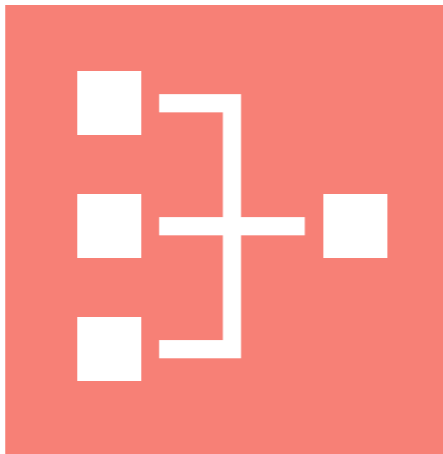


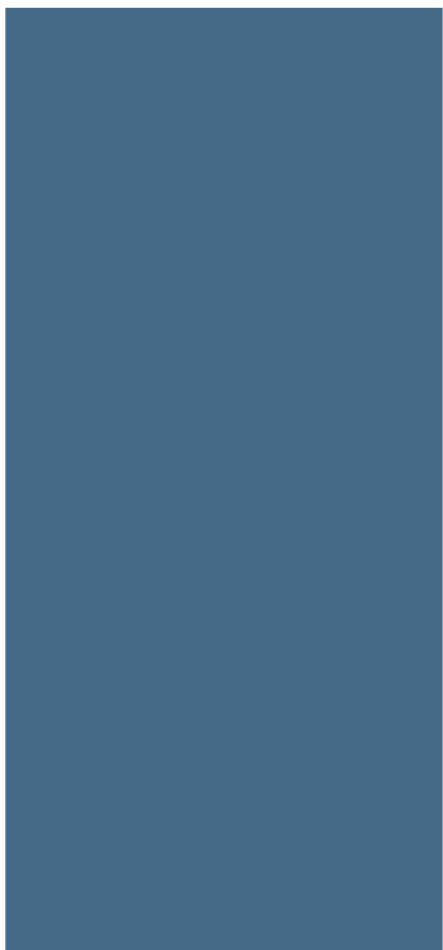
CSCI 141

Lecture 27
List comprehensions
Review



CS MENTORS PRESENT

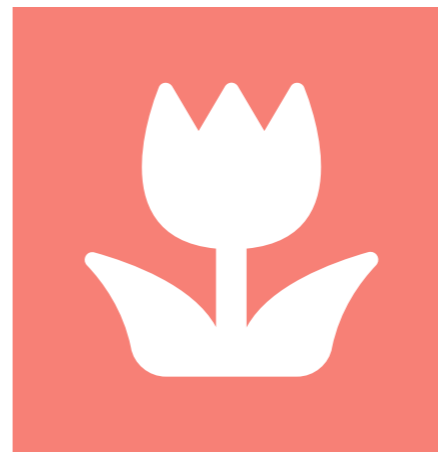
ML WORKSHOP



**DEC 4
4PM
CF 165**

No machine learning background required, basic python recommended.

This will cover the **basics** of machine and deep learning, **data processing** and **model creation / deployment**.



FOR DISABILITY RESOURCES, CONTACT 360-650-3083.



Chains of Trust Workshop

with Austin Tipton

Thursday,
December 5

5:00-6:30pm

CF 420

Austin attended WWU for two years and graduated with a degree in Computer Science. During this time he became interested in information security and specifically how bad actors use systems to gain unauthorized access. He currently works as a Security Engineer for Anvil Ventures.

Learn how chains of trust work with TLS and how to break that chain of trust with Burp Suite.

This will be a hands-on workshop. Please bring a Linux computer or Linux VM with OpenVPN and Java installed.

Before the workshop, please attempt the first challenge at hackthebox.eu/invite

360-650-2863

presented by:
WWU
Cybersecurity Club

CSCWWU@gmail.com

wwucyber.com/about/



You're invited to the Fall 2019

CS Study Break!

3 - 4 pm
Thursday, Dec 5th
CF 4th Floor Foyer

Take a break from all your hard work to
enjoy some cookies, hot cocoa, and make
paper snowflakes with friends!

For disability resources,
contact 360-650-3083

Announcements

- Code/answers for Monday's quiz are linked on the course website.
- No A5's accepted after tomorrow night.
- Office hours 10-11:30 today as usual.

How to Study

Reading is not enough: **solve problems.**

- **Goals** slides: can you do these things? Try and see.
- **Terminology**: be able to discuss the meaning of all words that appear in **blue** in the slides
- **Socratic questions**: make sure you know how to solve them. Then, try code in Thonny or compare answers with your peers.
- **Demo code**: solve the same problem without without looking at my code.
- **QOTDs**: still available on Canvas - make sure you know how to solve them.
(please **don't** re-submit QOTDs)
- **Sample coding problems** on Canvas
- **Exercises** from the eBook

What to study

- **The final exam is cumulative.**
- A comprehensive study guide can be generated by concatenating all **Goals** slides.

hardware and interactions
pseudocode / algorithms
comments
data types and conversions: int, float, str, bool
function calls; arguments and return values
variables
math, comparison, and logical operators, precedence
statement vs expression
binary conversion
if/elif/else, nesting
while loop syntax and behavior
importing modules
for loops, range

These are my notes on what to write problems about, generated from the goals slides.

defining functions with and without return values and parameters
docstrings, specs, pre/postconditions
local variables, variable scope; parameters are local variables
tuples - unpacking, packing, return values and parameters
function composition
strings: operators, len, indexing, negative indices, slicing, in, lexicographic ordering
string methods: upper, lower, find, replace
lists: same stuff as strings
lists: modifying using assignment, append, extend, concatenation, insert, remove, del
lists are mutable; variables hold references:
 multiple variables can refer to the same object
 you can pass a reference to a mutable object into a function
dictionaries: creation, assignment/indexing, in, del; iterating over keys and values
files: open function, "r" vs "w"
 read(), read(size), readlines(), write(string), seek(pos)
 iterating over a file object

Today

- Bonus Python ninja feature: list comprehensions
- A4 solution code
- Your questions
- Midterm Exam greatest hits

Friday (tentatively)

- Bonus Python ninja feature: f-strings
- Bonus Python WTF: recursive functions
- A5 solution code
- Your questions

List comprehensions

My A4 Solution

Midterm Exam: Greatest Hits

1pm edition

- 1.2: print's sep kwarg
- 1.3: input's return value
- 2.7: "5" * 3 + "22"
- 4: for m in ["A", "B"]
- 5: while num1 >= num2
- 12: avg and high score

Midterm Exam: Greatest Hits

9am edition

- 1.1 - print's return value
- 1.3 - input's return type
- 2.7 - "5" * 3 + "44"
- 4 - for m in ["T", "F"]
- 5 - while num1 >= num2
- 12 - avg/high score
- 2.1 - 6/2
- 3 - for x in range(5,-1,-3)