

### CSCI 141:

### Computer Programming I

Lecture 0 Introduction, Logistics, Hello World

### Today

- What is this course about?
- Why are we here?
- Who is this character?
- Syllabus questions
- Meet your team!
- Let's write some code already!

What is this course about?

What will you learn?

#### From the course catalog:

Basic concepts of computer programming using an object oriented programming language. Topics covered: introduction to the development environment, introduction to algorithms, elements of a programming language, including data types, packages, control structures, procedures and functions, basic input and output, arrays and records, text files, strings, variant records. Algorithm development, problem solving and software engineering are emphasized.

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- data types
- control structures
- functions
- strings
- arrays

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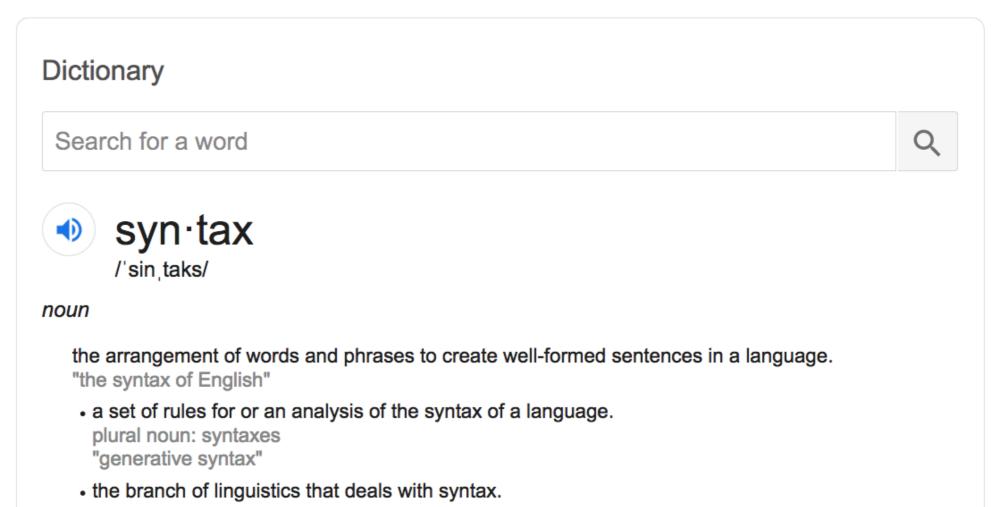
These are the "nuts and bolts": the *syntax* and *semantics* of programming languages.

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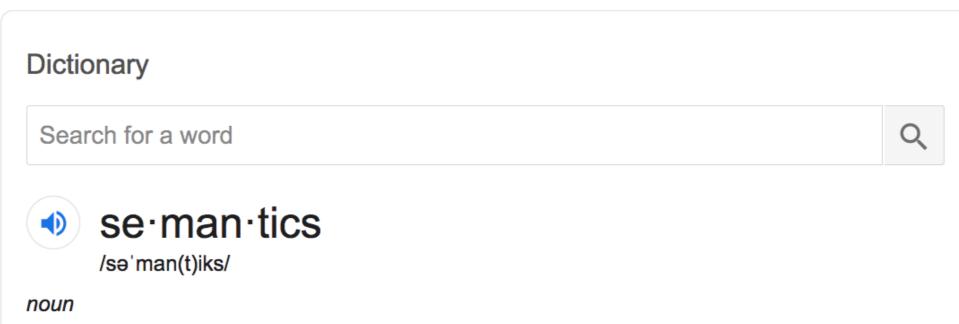


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These are the "nuts and bolts": the *syntax* and *semantics* of programming languages.



the branch of linguistics and logic concerned with meaning. There are a number of branches and subbranches of semantics, including *formal semantics*, which studies the logical aspects of meaning, such as sense, reference, implication, and logical form, *lexical semantics*, which studies word meanings and word relations, and *conceptual semantics*, which studies the cognitive structure of meaning.

the meaning of a word, phrase, sentence, or text.
 plural noun: semantics

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#### Problem Solving and Software Engineering:

- Break down and analyze problems
- Design algorithms that solve problems
- Describe algorithms in pseudocode
- Implement algorithms using clearly written, correct Python code.
- Fix errors and make changes to the code once it's written.

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 Fix errors and make changes to the code once it's written.

Why do you want to learn how to program?

• Some ideas:

- Some ideas:
  - Get a job with cool perks and a high salary



- Some ideas:
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  - Automate repetitive tasks



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  - Automate repetitive tasks
  - Process or analyze data you encounter in your chosen profession

#### to OUTDOORED-L -

Hi there,

Ice cream for the fist person who can get me what I want.

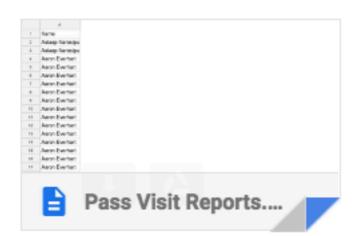
Count the number of times each person's name occurs with Column A=Person's Name, Column B=# of Occurrences.

READY? GO!

Thanks,

Andrew

Cornell Outdoor Education
Climbing Program Coordinator



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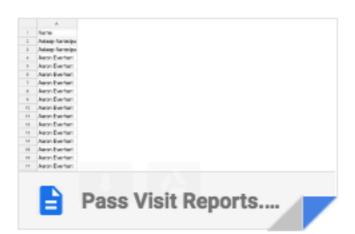
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  - Automate repetitive tasks
  - Process or analyze data you encounter in your chosen profession
  - Execute your creative vision

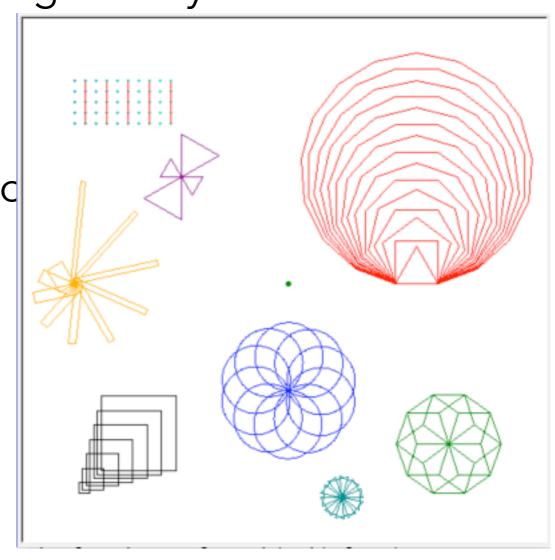
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  - Execute your creative vision
  - Understand what's going on inside the computers you use daily
  - Make friends with our future robot overlords

• Some ideas:

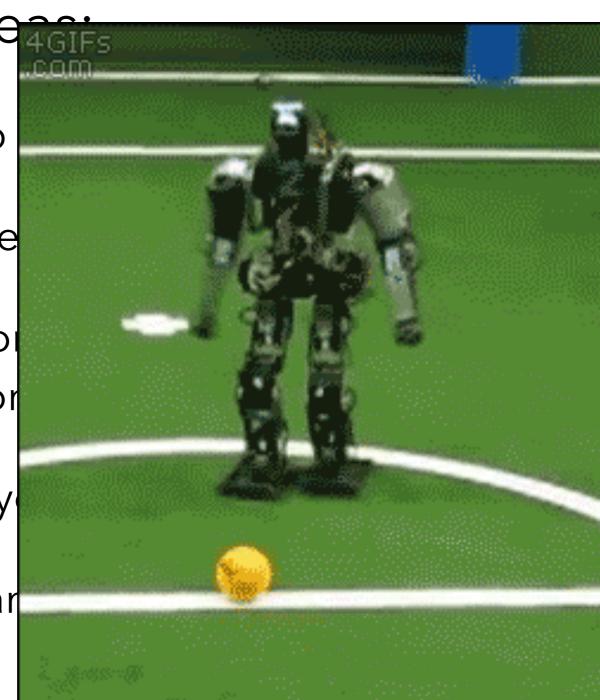
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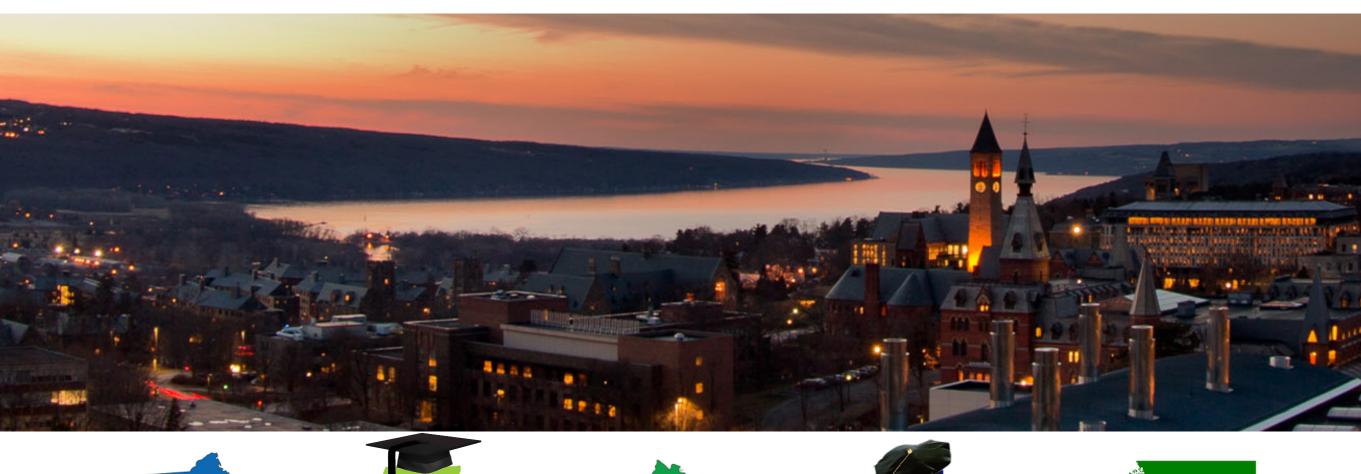
### Who is this character?

### Scott

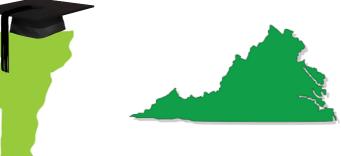


#### **Scott Wehr**









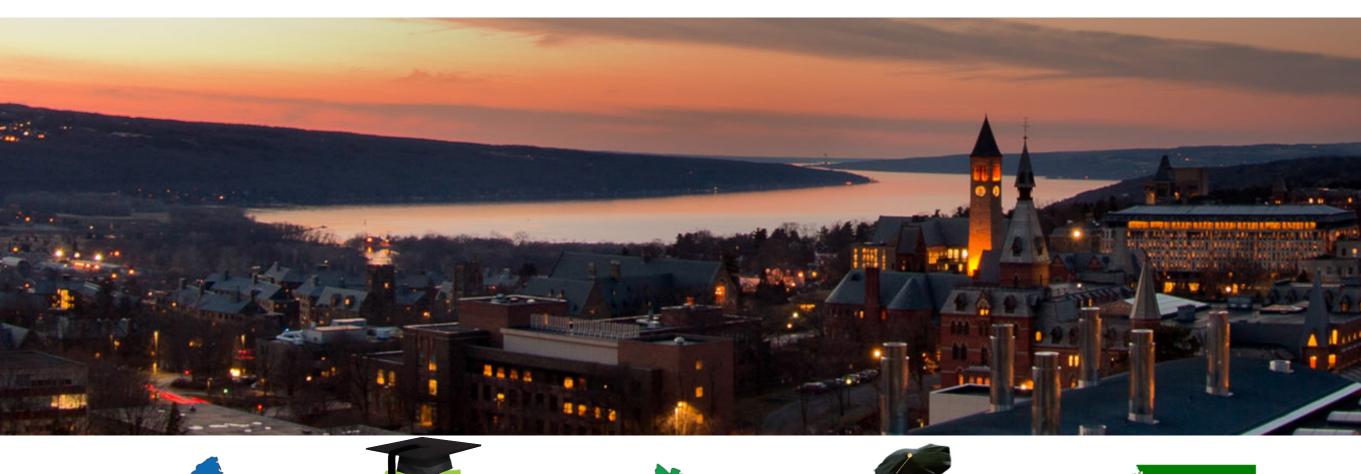




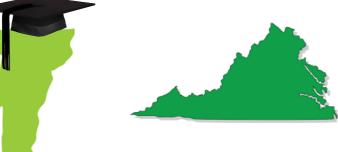
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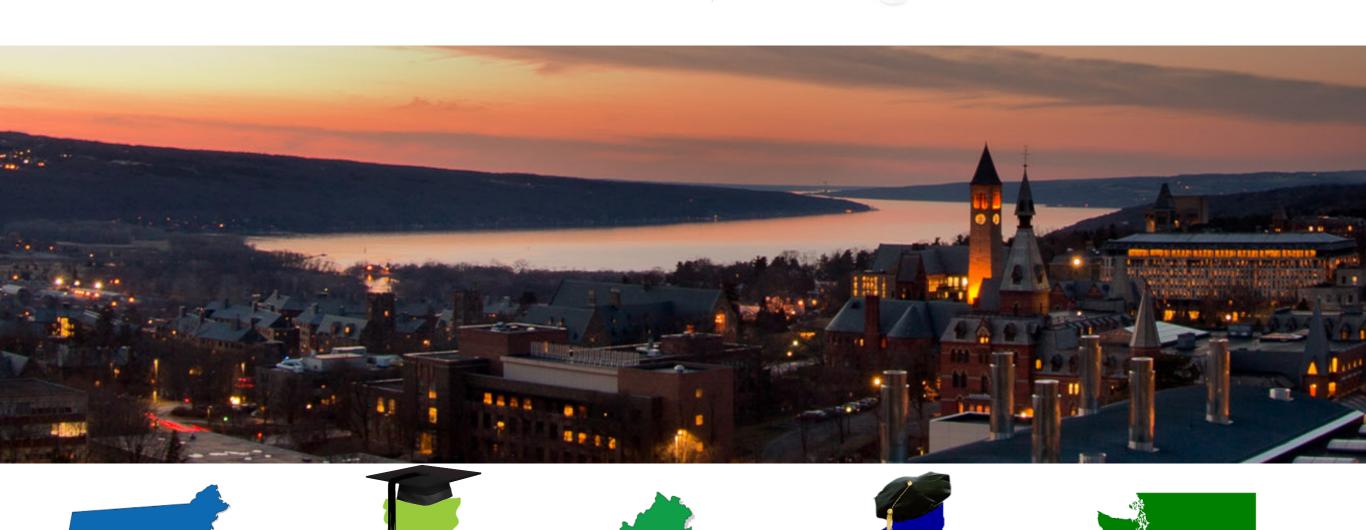








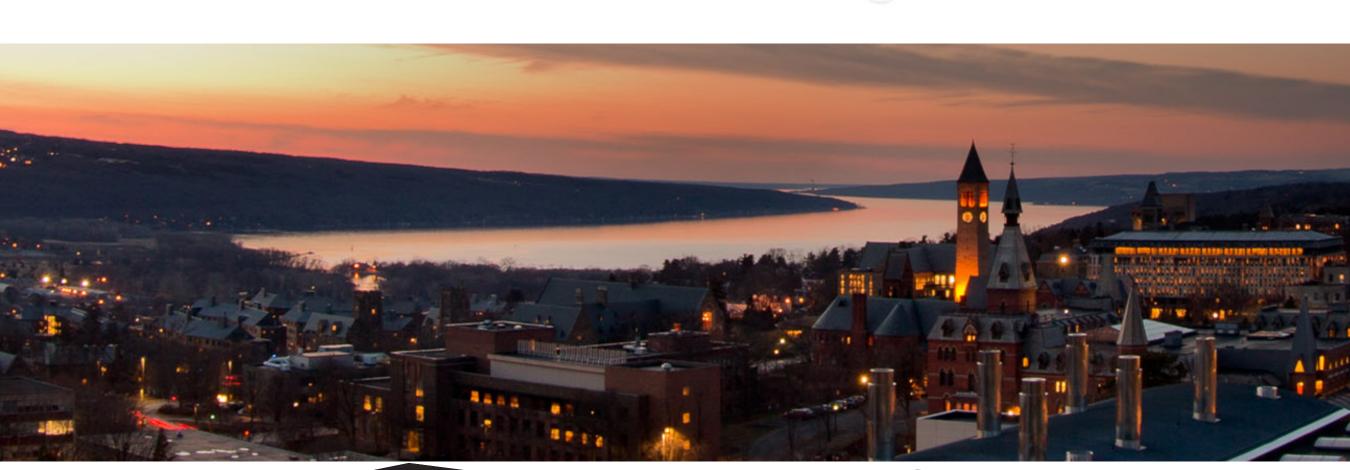
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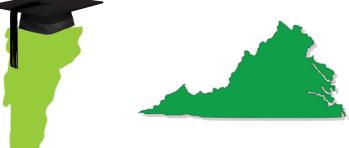
#### **About Me:**

#### **Scott Wehrwein**

(call me this!)



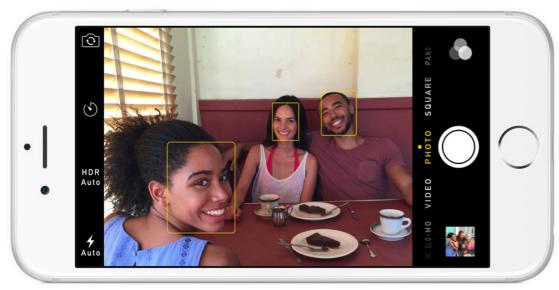








#### Computer Vision: Familiar Examples



In-Camera Face Detection



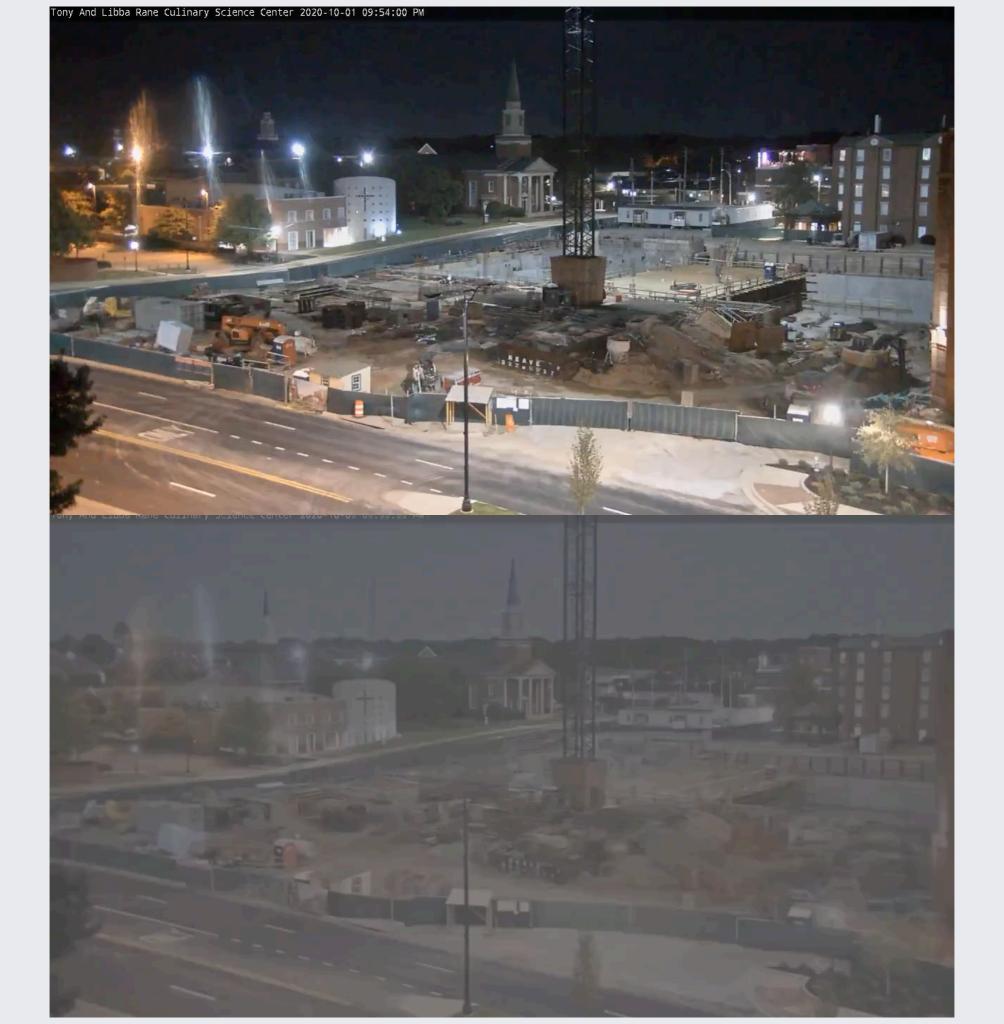
Text-Guided Image Generation

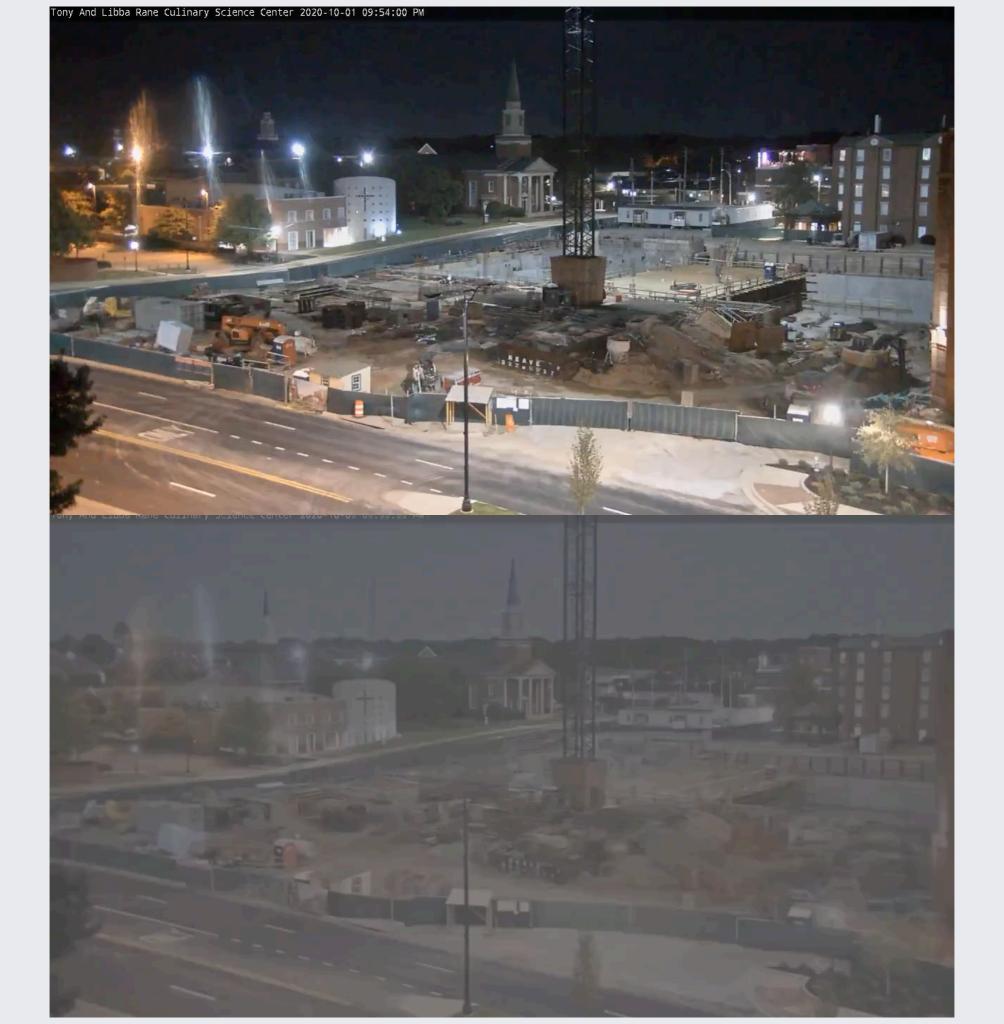


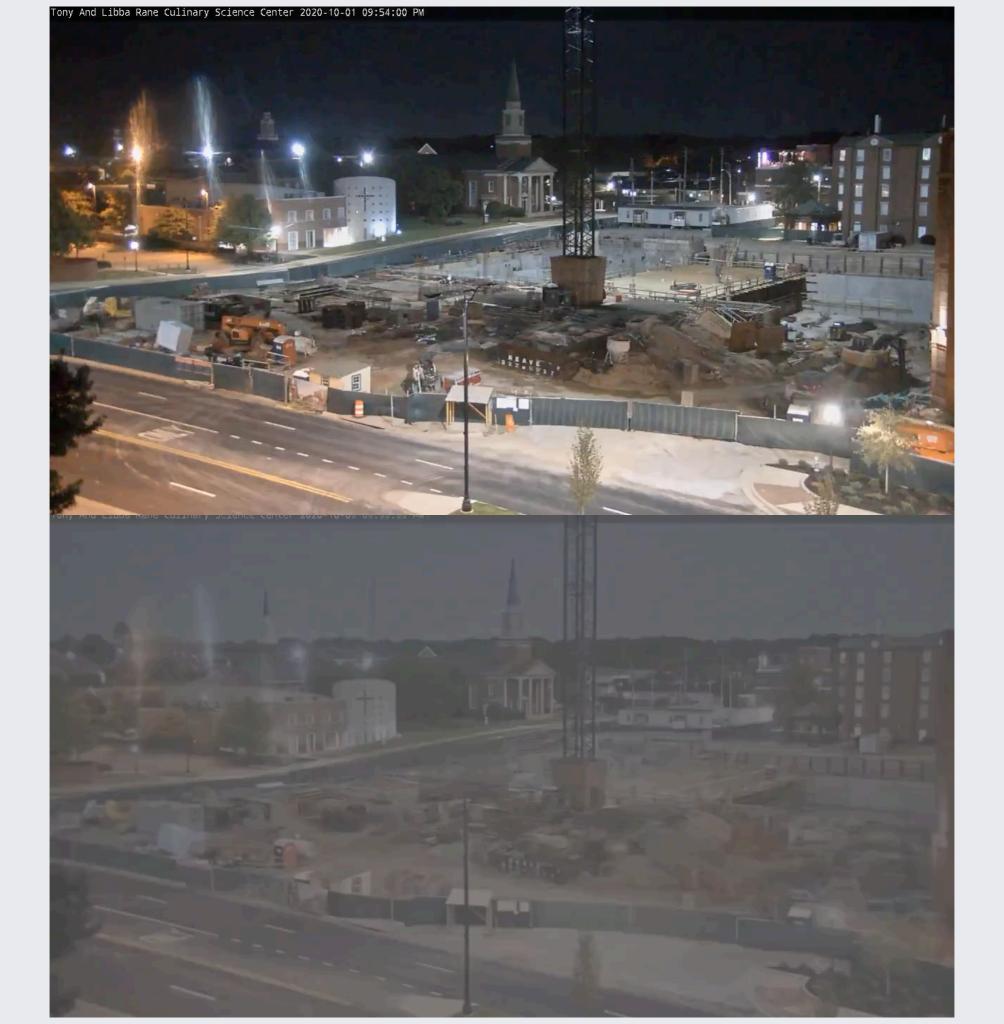
**Autonomous Driving** 



Image Search

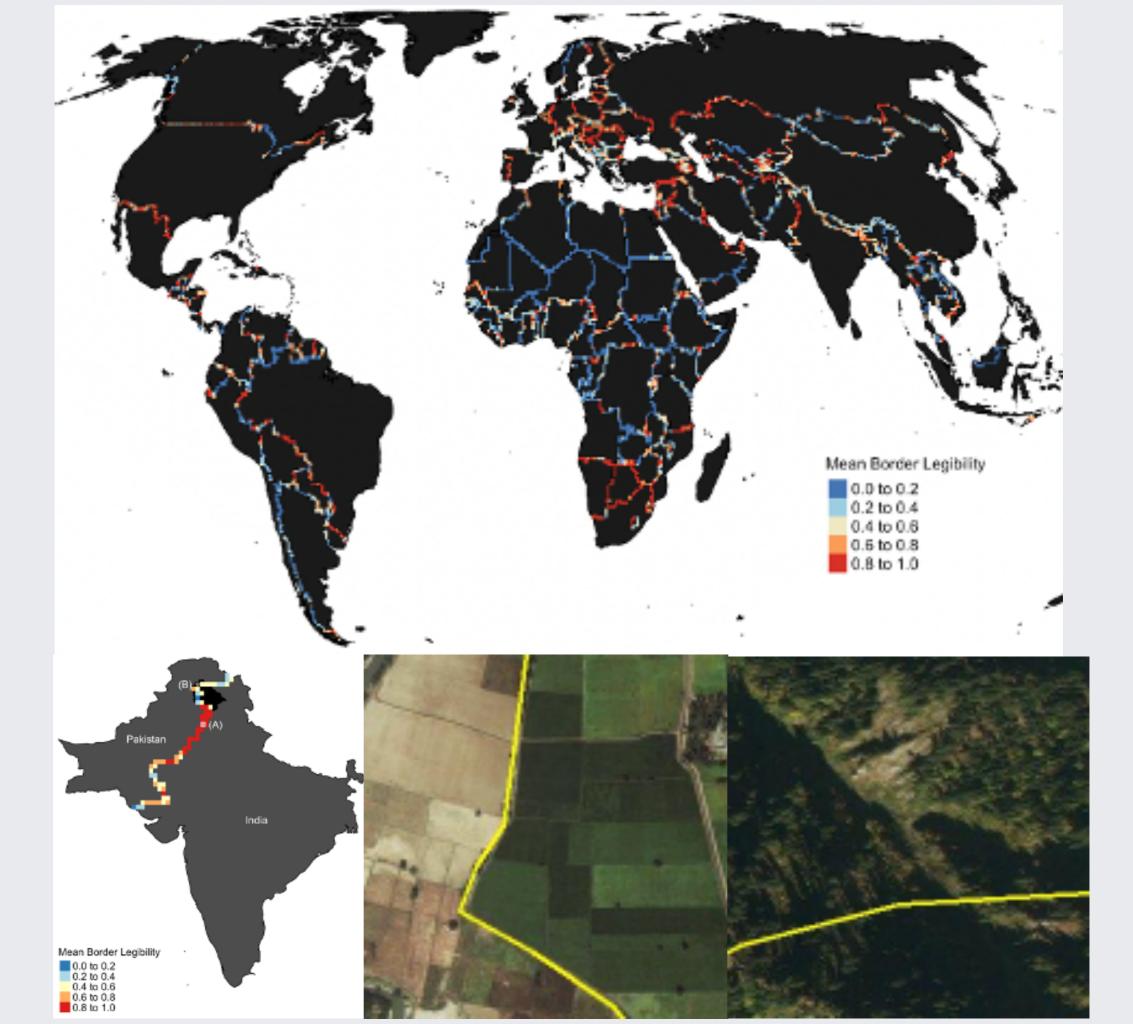












# Logistics

The syllabus is [on] the course webpage:

https://facultyweb.cs.wwu.edu/~wehrwes/courses/csci141\_25s

#### This link can also be found on the Syllabus page on Canvas.

#### **CSCI 141 - Computer Programming I**

Scott Wehrwein

Spring 2025

- Course Overview
- Assessment
- Resources for Getting Help and Support
- Logistics
- Quick Links
- Schedule
- Course Policies

#### **Course Overview**

### About You Survey

Thanks for filling out the survey!

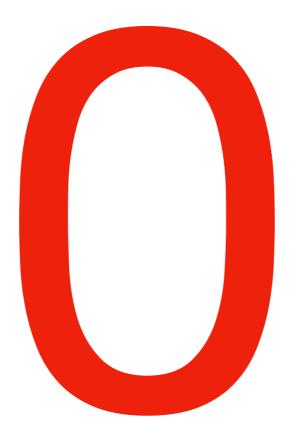
If you haven't yet, please fill it out - late submissions are accepted.

# My Expectations

Q4: How many months of programming experience do you have?

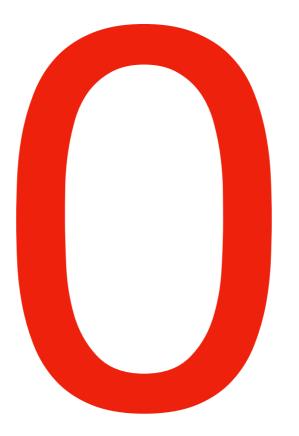
# My Expectations

Q4: How many months of programming experience do you have?



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Q4: How many months of programming experience do you have?



Some of you have prior experience, but zero is what I will assume.

# Syllabus Questions?

### Meet your team!

- Arrange yourselves in your teams and introduce yourselves!
- Complete the Syllabus Questions
- Submit your answers using the form linked from Quick Links on the course webpage:

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#### **Quick Links**

- Course webpage: (you are here): https://facultyweb.cs.wwu.edu/~wehrwes/courses/csci141\_25s
- Team Exercise Submission Form: https://forms.office.com/r/E5z1ABVBdE
- POTD files: https://github.com/csci141/POTD/tree/2520\_wehrwein/skel
- Canvas https://www.instructure.com/courses/1766120

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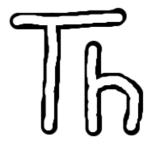


 A programming language is a language a computer can "understand" and execute (more on what this means next time)

 Python is our chosen programming language in this course.



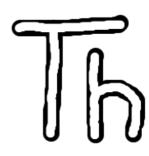
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- We'll use a program called **Thonny** to write our Python code.



• **Python** is our chosen programming language in this course.



- A programming language is a language a computer can "understand" and execute (more on what this means next time)
- We'll use a program called **Thonny** to write our Python code.
- Thonny is an example of an "Integrated Development Environment" (IDE): a program that provides all the features you need to write, run, and fix errors in programs.



# Without further ado... Hello, world!

### Hello, world!

- hello.py
- Concepts demonstrated:
  - Basic usage of Thonny
  - Comments
  - The print function
  - Single and double quoted strings