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?

- Some course logistics

- Let's write some code already!

What is this course about?

- What is this course about?

- What will you learn?

What is this course about?

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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What is this course about?

Computer Programming:

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

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

Dictionary

Search for a word 🔍

🔊 **se·man·tics**
/səˈman(t)iks/

noun

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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What is this course about?

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.

Computer Programming:
- data types
- control structures
- functions
- strings
- arrays

Why learn to program?

- Why do you want to learn how to program?

Why learn to program?

- Some ideas:

  - Get a job with cool perks and a high salary

Microkitchen at Facebook: Free snacks!

Why learn to program?

- Some ideas:

  - Get a job with cool perks and a high salary

  - Automate repetitive tasks

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

Pass Visit Reports....

Why learn to program?

- Some ide

  - Get a job   ry

  - Automate

  - Process o   n your chosen
    profession

  - Execute y

  - Understan   omputers you
    use daily
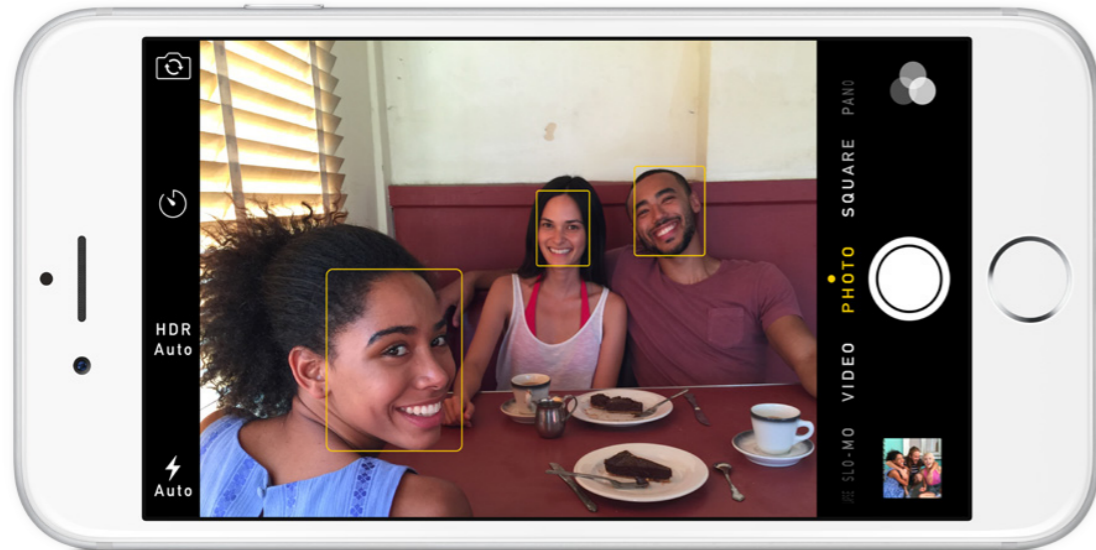
  - Make friends with our future robot overlords
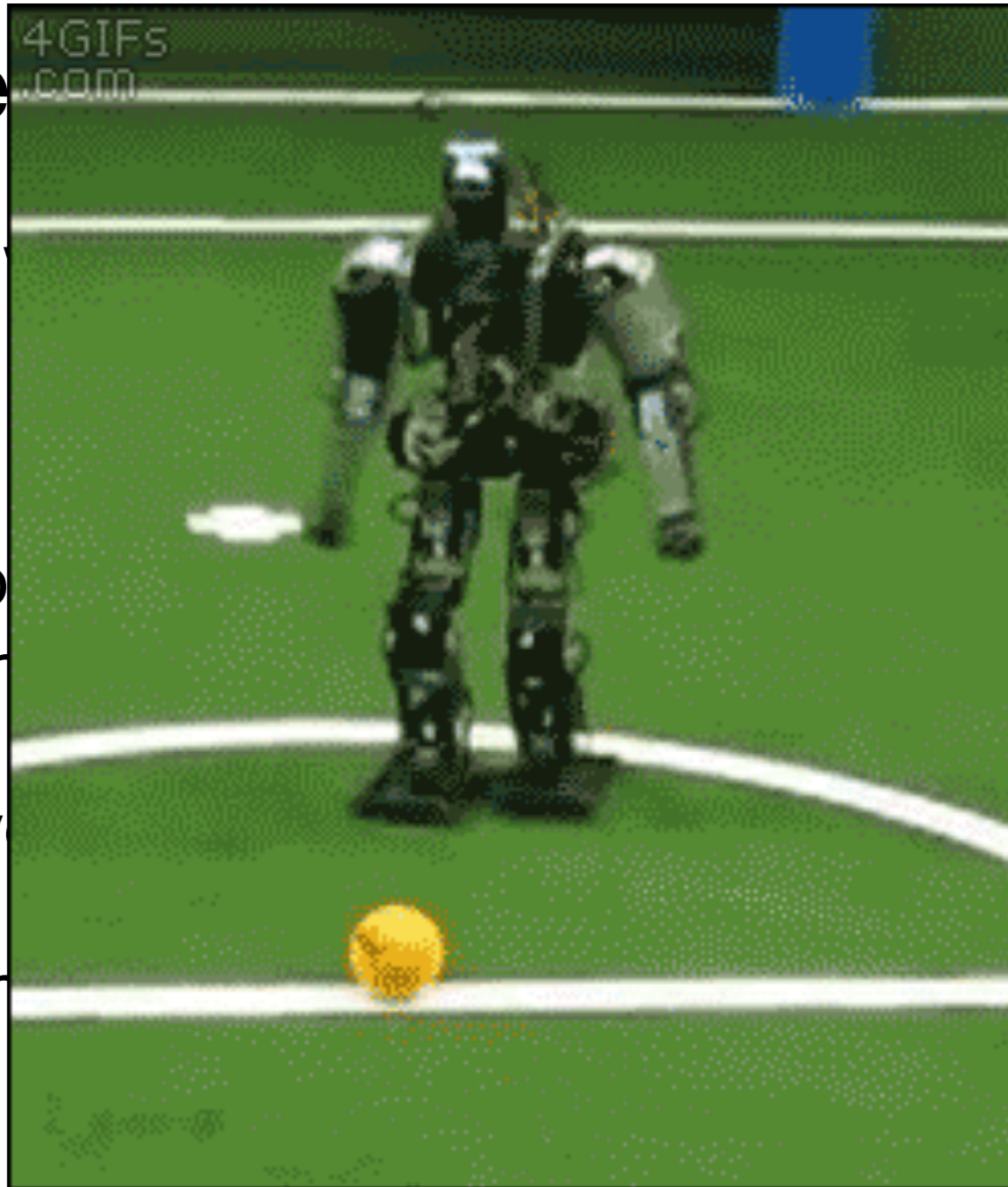
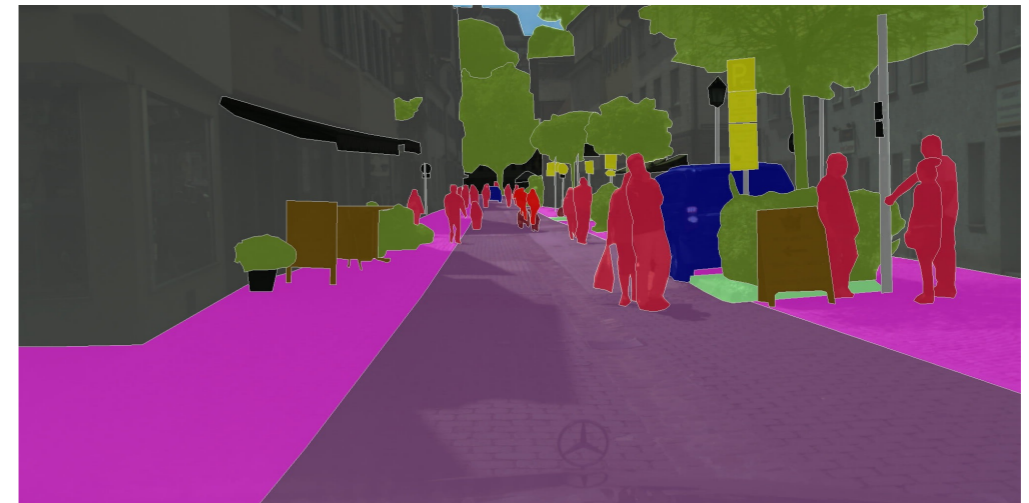# Who is this character?

About Me:

Scott Wehrwein

(call me this!)

Computer Vision: Familiar Examples

In-Camera Face Detection

Autonomous Driving

Text-Guided Image Generation

Image Search
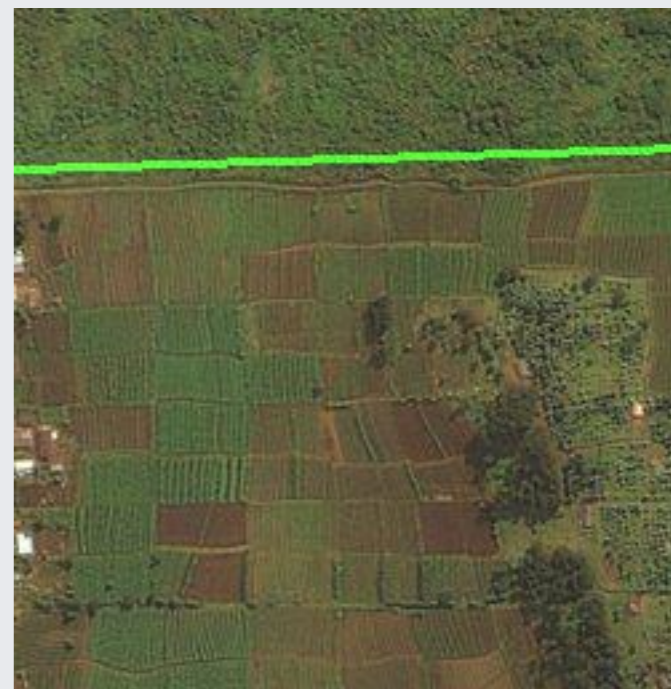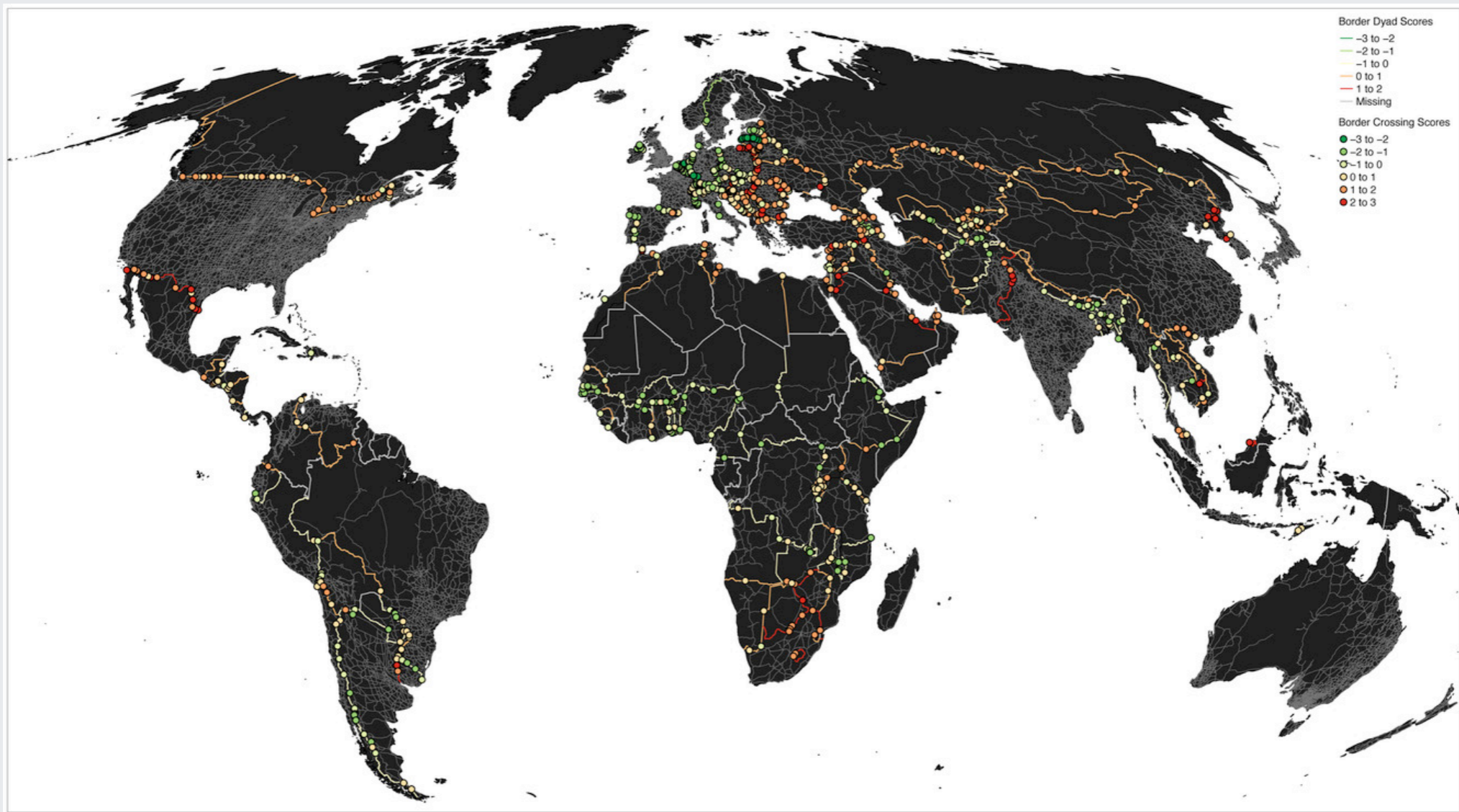
Less legible ⟵   ⟶ More legible

Logistics

The syllabus is [on] the course webpage:

https://facultyweb.cs.wwu.edu/~wehrwes/courses/csci141_23w

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

CSCI 141 - Computer Programming I

Scott Wehrwein

Winter 2023

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

Course Overview

- Syllabus and Course Website (you are here): https://facultyweb.cs.wwu.edu/~wehrwes/courses/csci141_23w

Syllabus Highlights

- Flipped structure

- Assessment components

- Labs

- Schedule table

Syllabus Questions?

Your Tasks for Wednesday

- Make sure you have read the syllabus carefully

- Watch the lecture videos

- Complete the Exercises and submit your answers to Canvas before the start of class.

- Look up your in-class team number on Canvas

  - See <u>this link</u> if you don't know how.

- (optional) Join the course Discord server

About You Survey

My Expectations

Q2: How many months of programming experience do you have?

0

Some of you have prior experience, but zero is what I will assume.
We'll look at the survey results and talk more about this next time.

Let's write some code already

- **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.
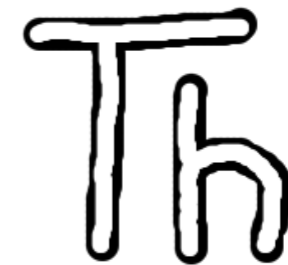
Without further ado...
Hello, world!

Hello, world!

- hello.py

- Concepts demonstrated:

  - Basic usage of Thonny

  - Comments

  - The `print` function

  - Single and double quoted strings