Class Today

• Go over syllabus, web page
• Introduce computer science and Alice
• Demo of Alice
  – Simple world/sample Alice worlds
• Classwork - A simple Alice world
About Prof. Rodger

How do you keep your sanity?
What is Computer Science?

• Computer science is no more about computers than astronomy is about telescopes. - Edsger Dijkstra

• Computer science is not as old as physics; it lags by a couple hundred years. However this does not mean that there is significantly less on the computer scientist’s plate than on the physicist’s: younger it may be, but it has had a far more intense upbringing! - Richard Feynman
Computer Science is a young discipline

• First computer science department formed in 1962
What is Computer Science?

- Artificial Intelligence

Spirits, Mars Rover

Self-driving car

Roomba

Personal Robot
What is Computer Science?

- Medicine, Genomics
What is Computer Science?

• Animation
What is Computer Science?

• The Organization of Data, and Searching

Did you mean: computer science
What is Computer Science?

- Devices
Computer Science and Programming

• Computer Science is more than programming
  – Called Informatics in many countries
  – Elements of both science and engineering
  – Elements of math, physics, cognitive science, music, art, and many other fields

• To some programming is an art, to others a science, to others an engineering discipline.
What Will We Do in CompSci 94?

• Alice 3 for one week
• Web pages/html (one week)
• More Alice 3 programming
• Logistics – bring to class
  – laptop
  – textbook.
How CompSci 94 Will Work

• In Class
  – Lecture/demos
  – Classwork (in assigned pairs)
  – REQUIRED ATTENDANCE

• Outside of class
  – Complete work not finished in class
  – Reading
  – Assignments
What Is Alice?

- A modern programming tool
  - 3-D graphics
  - 3-D models of objects
- Animation
  - Objects can be made to move around virtual world (a simulation or video game)
What does Alice run on?

• Alice is written in Java – should run on many systems
  – supports Mac and PC

• Which version of Alice are we using?
  – Alice 3.3
  – Alice.org, see the CompSci 94 resources page
  – Note: Alice 3 is quite a bit different from Alice version 2
Fast Start Up

• Can quickly learn to create
  – A simple animation in a few minutes
  – A non-trivial animation in a few class periods

• Can learn to use the Alice interface after a few more class periods
Example from Alice 2
Example from Alice 2

![Illustration of a person riding a bike with a clock and speech bubble saying "I am going on a bike ride".]

CompSci 94 Spring 2018
The Power of Alice

• Automatically keeps track of 3-D objects
  – What objects are in the virtual world
  – Types of objects
  – Positions of objects in the world
Some Alice 3 examples

• Panda Pattern

• Fantasy Park
Download Alice 3 from alice.org, NOT Alice 2!

Alice 3 is the newest installment of the Alice programming language. It has all of the features that have made Alice an exciting and creative first programming experience with an added emphasis on object-oriented concepts. Alice 3 has a new rich gallery of models that includes everything you need to spark your creativity including a full Sims ™ character builder. The new gallery has been built upon a shared class joint structure allowing you to share animations between different characters of the same type. In addition it supports a number of great features to assist in a full transition to the Java programming language including viewing the generated Java code in a side by side window and even exporting your world into NetBeans to be able to extend the functionality by coding Alice worlds directly in Java.
For Tuesday!

• Finish classwork from today
• Download Alice 3 (actually 3.3) from www.alice.org
• Assignment 1 out – Due January 18
• Plan
  – More Alice on Tuesday
  – Take a short break from Alice and learn html for web pages
  – Alice the rest of the semester
Demo