CSCI 334:
Principles of Programming Languages

Lecture 23: Tests / OOP

Instructor: Dan Barowy

Williams

Topics

Tests

OOP

Announcements

Suresh Venkatasubramanian (White House; Brown U)

Thursday, May 5 @ 7:30pm*
Bronfman Auditorium – Wachenheim B11
"Machine Readable": The Power and Limits of Algorithms that are Shaping Society
*Talk open to the public. Private reception to follow for Williams students, faculty and staff.

Friday, May 6 @ 2:35pm*
Computer Science Colloquium – Wege TCL 123
On Equity in Access
*Williams students, faculty and staff only.

Suresh Venkatasubramanian is a professor in computer science and data science, currently at the White House in the Office of Science and Technology Policy. His background is in theoretical computer science, and he's taken a long and winding path through many areas of data science. For almost the past decade, he's been interested in algorithmic fairness, and more broadly the impact of automated decision-making systems in society.

Your to-dos

1. Lab 10, **due Sunday 5/15** (don't wait!)
2. Reading response, **due Wednesday 5/11**.

Unit testing

Unit testing is a quality-assurance method designed to find bugs before software ships. A **unit test** consists of **test code** written to exercise the functionality of a **unit** of code in isolation. For example, in functional code, a unit is often thought of as a **module**, **function**, or **primitive** operation.

Note that unit testing is usually **not sufficient** to determine the correctness of code!

Popular Unit Test Frameworks

Java: JUnit

.NET: MsTest or NUnit

Python: unittest

Ruby: rspec or cucumber

Tons more!

`https://en.wikipedia.org/wiki/List_of_unit_testing_frameworks`

(demo)

Recap & Next Class

This lecture:

Testing

OOP

Next lecture:

Packages

C++