New: CS 11 Track, Fall'19

The [Art and] Science of Debugging

Instructor: David Elliot - OM, Wednesday, 10/2, 9:00PM, 105 ANB

This is a practical course exploring techniques and tools for characterizing, diagnosing and repairing broken computing systems. Students will develop skills needed to confidently dive into unfamiliar systems of uncertain quality, with a course capstone project repairing bugs in open source projects of students' choosing. Out of class assignments will revolve around fixing broken real-world code, supported by in-class work covering practical technical details and setup of systems and tools. Necessary additional foundational topics are covered in managing virtual compute systems and the use of modern debugging tools, with specific emphasis on the unique types of bugs presented by memory-unsafe languages like C.