

Fowler School of Engineering Presents: What's the Fuzz about Testing?



**Dr. Gerard Holzmann,
Nimble Research**

Thursday, March 5, 2020

Beckman Hall, Room 107

12:00 - 1:00 PM

Free to attend! All are welcome!

Most international standards for the development of safety critical software require that testing meets a level of rigor known as MC/DC coverage. Dr. Holzmann will explain what that means and how it performs. He will also look at another method of testing that is increasingly popular: Fuzz Testing, and compare it to the MC/DC method. Finally, Dr. Holzmann will look at how the rigor achieved by both methods can be improved dramatically with some small changes, and show how we used this modified method to formally analyze the Mars Rover software.

Holzmann started his career as a researcher in the Computing Science Research Center at Bell Labs (where Unix, and C and C++ were created). He moved to NASA's Jet Propulsion Laboratory in 2003 to start a new Lab for Reliable Software (LaRS) to advance stronger methods for software testing and code review. In 2010 he led the NASA team that performed the analysis of the Toyota engine control software for potential triggers of unintended acceleration. Dr. Holzmann is a member of the US National Academy of Engineering.



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