2024 Spring International Contest on Software Testing

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While software testing continues to be the primary approach used in practice to ensure the development of high-quality software, students graduating with a Bachelor's or a Master's degree in computer science or software engineering may not be properly trained for doing software testing cost-effectively. To increase the awareness of this problem and to give students a taste of how software testing may be conducted and how to measure the quality of the test cases used for testing a program, we organized an *International Contest on Software Testing* (ICST) on March 30, 2024. This has been held as an annual event for the last several years. In addition to the Department of Computer Science at the University of Texas at Dallas, the contest was also co-sponsored by the Technical Committee on System and Software Assurance of the IEEE Reliability Society and the Dallas Chapter of the IEEE Reliability Society.

The contest was held in a hybrid mode where contestants in the Dallas-Fort Worth metropolitan area participated in-person at UTD, and those from other geographic regions such as Austria, India, Brazil, Japan, China, and Taiwan joined online. More than 200 students from Seven different countries registered/attended the contest. Before attending the contest, they were required to watch a video and complete a practice test. During the contest, each contestant had to work independently to design a suite of test cases with specific input values based on the source code and other requirements to test multiple Java programs. The quality of their test cases was measured by the code coverage and mutation score achieved. More details can be found on the ICST website (https://swtesting.techconf.org/).

The following figures show the contest on the campus of UT Dallas.

In-person contest at UTD

A certificate was presented to every contestant for their participation. In addition, the 1st place winner received a $300 prize; the 2nd place for a $200 prize; the 3rd to the 5th each for $100 prize; the 6th to the 8th each for a $75 prize, and the 9th to the 11th each for a $50 prize.