Background:
The failure found, during regression testing, are caused by the change in the source code but sometimes, it is due to non-deterministic tests. These types of tests are called flaky tests [1]. Tests that indicate failures but do not execute any code affected by changes detract developers from investigating real faults and lowers confidence in test automation. Bell et al. have developed a tool called “Deflaker” [2] for Java projects that detects if the test failure is due to flaky test, without rerunning the test and with a very low runtime overhead.

Project Description:
This project requires an investigation of test artefacts or other attributes in testing to detect and avoid flaky tests. You need to study the root causes of flaky tests and mitigation strategies. This BSc thesis project involves re-implementing “Deflaker” for Python. This tool will be used in an on-going study within the research project Aspects of Automated Testing, in collaboration with Software Center (www.software-center.se). You are required to understand how Deflaker works and adapt it for Python projects. The secondary contribution is to run this tool with open source Python projects to evaluate its efficiency.

Reference:

References: