

Laboratory of Innovative Software Homework Assignment

Part1: Paper Summary

As part of the course, you will be expected to submit and discuss a summary for the scientific paper below.

All You Ever Wanted to Know About
Dynamic Taint Analysis and Forward Symbolic Execution
(but might have been afraid to ask)
Edward J. Schwartz, Thanassis Avgerinos, David Brumley

To help you with this, a paper summary template, which you should fill out, is presented below.

Paper summary (Template)

Title

Summarize the main contributions of the paper

Pros:

Cons:

Part 2: Programming

The homework involves a programming activity and the submission must include all required files for compiling and executing the proposed solution.

The programming assignment consists of designing and implementing an interpreter (in the OCAML programming language) of a simple functional programming language. It is mandatory that the interpreter be equipped with a mechanism for dynamic taint analysis (as discussed in the scientific paper above), and a report about the implementations and the experiments.

The functional programming language considered must include the main primitives of the functional paradigm (functions and higher order functions) and facilities (library functions) for getting values from the external environment.