Lab Security in Distributed Systems

MA-INF 3320
Application

In order to get a topic, you will need to submit your expose until 23.03.2020. Please send it to the respective supervisors. You will be informed whether you were chosen/not chosen for your favourite lab topic until 02.04.2020. Multiple applications are allowed for up to three topics.

**Deadline for expose: 23.03.2020**

**Deadline for registration in BASIS: 30.04.2020**
Anti- and Anti-Anti-Fuzzing Techniques

Supervisor

Klaus Tulbure
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Fuzzing is a state-of-the-art analysis for finding bugs and vulnerabilities in software. It can be described as an "intelligent" brute-force analysis that penetrates a program with input to, hopefully, cause a crash.

Some developers might not want their software to be fuzzable, e.g. to protect it against adversaries. Hence, they implement anti-fuzzing techniques that slow down the fuzzing process.

However, that's just security by obscurity (i.e. not good) and on the long term an attacker will overcome the obstacle. Hence, one wants to break these anti-fuzzing techniques and find potentially hidden bugs before an attacker does.
Anti- and Anti-Anti-Fuzzing Techniques

**Your task** will be to develop such an anti-fuzzing technique, or to take an existing technique and improve a fuzzer to overcome it.

**Requirements** are advanced programming skills in
- C/C++ or Java

**Literature**
Password Manager Security Analysis

Supervisor

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Password Manager Security Analysis

This Project group / Lab is for those with a strong interest in applied Security. You will review an open source password manager for vulnerabilities, covering topics including:

• Web Security
• Application security
• Cryptography
• Backdoors

This Project group / Lab is not a primer on Security. You should either have a Background in Security or be willing to spend additional time learning about it.
Own ideas?

Supervisors

all of us

send your ideas to
Klaus Tulbure

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Own ideas?

You've got some own ideas for a project in Usable Security and Privacy?

GREAT!

We'd love to work with you on that!