



UNIVERSITY OF PISA
School of Engineering

FORMAL METHODS FOR SECURE SYSTEMS

AN ADVISE MODEL FOR ATTACKS ON AUTONOMOUS
VEHICLES BACK-END SERVERS

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Chapter 1

Introduction

In what follows the study of different adversaries trying to attack the back-end servers related to autonomous vehicles is carried out.

The work is organized as follows:

- Firstly, chapter 2 gives an initial overview and a presentation of the scenarios.
- Secondly, in chapter 3 the complete attack tree is presented.
- In chapter 4 the development of the Mobius simulation is described and its results are presented.

The entire codebase is available at <https://github.com/YuriMzz/vehiclesADVISE> .

Chapter 2

Overview

In this chapter a general overview of the scenarios and the involved actors is given.

2.1 Actors

Chapter 3

Attack tree

Chapter 4

Simulation