

# Student project in Information Security at the University of Luxembourg

*Title: Automated generation of attack tree models*

## Project description

We are looking for a motivated Master student to work on the automatic generation of attack tree models. The specific tasks of the project are the following:

- Use a model checker tool or implement a model checking algorithm to find traces in an LTS-based system model.
- Translate first-order logic formulae into natural language. First-order logic formulae are used in LTS-based models to characterize system states. We will use the translation algorithm to label system states with human readable annotations.
- Develop programs, in any suitable programming language, based on available algorithms, to generate attack tree models from a set of traces.

We offer a 6-months student contract to accomplish the tasks of this project. More details will be provided on request.

The successful candidate will work under the supervision of Prof. Sjouke Mauw. It is possible to extend this work towards a Master thesis.

## Contact Information

For further inquiries please contact:

- Prof. Dr. Sjouke Mauw ([sjouke.mauw@uni.lu](mailto:sjouke.mauw@uni.lu)) or
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