MASTER THESIS – SECURE CODING IN PRACTICE

Background
Today, security is a necessary part of most software development projects. Especially when building products used in critical infrastructure. It is becoming a standard practice for buyers of software-based products to require that vendors can give an account of what assurance has been performed to make sure that security aspects have been properly considered during the development of a product.

Ericsson has incorporated security assurance in its development processes and works systematically to improve and extend them. One area of security assurance is Secure Coding where the aim is to avoid that coding mistakes, that might cause a security vulnerability, can remain undetected, or that they are made in the first place.

Thesis Description
This master thesis project will, in close cooperation with development teams, investigate how we at Ericsson can improve our existing Secure Coding practices.

The project includes a theoretical part that should provide a good overview of the existing state of the art with respect to Secure Coding, covering both ways of working and supporting tools. A practical part of the project involves evaluating, in close collaboration with a development team, the impacts of introducing new tools in the process. Interesting questions here are; which is the initial effort, how easy is the tool to use, and how effective is the tool in detecting potential problems.

The thesis will be concluded with a result presentation for relevant groups within Ericsson.

Qualifications
This project aims at students in electrical engineering, computer science, computer engineering or similar. Background in information security is preferred.

Extent
1-2 students, 30hp each

Location
Ericsson AB Mjärdevi, Linköping

Preferred Starting Date
Spring 2018

Keywords
Secure Coding, Information Security

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