Motivation and Task Description

A code property graph (cpg) is a representation of source code in form of a labeled directed multi-graph. The graph is used for static code analysis. Security vulnerabilities can be found by writing search queries on the graph to match known bad code patterns. The project is open source and can be found on github\(^1\).

The cpg is written in Java/Kotlin and supports C/C++, Java, Python and golang as target languages. Currently, the cpg is lacking C/C++ language features. Consequently, we are looking for developers enhancing cpg’s feature set and to push the project forward.

If you enjoy self-driven research and open source development, we are looking forward to your application.

The monthly working time is 40 hours, but can be de-/increased on request.

Requirements

- Programming experience, preferably in Java or Kotlin
- Interest in learning about static code analysis

Contact

Tobias Specht  
Telefon: +49 89 322-9986-187  
E-Mail: tobias.specht@aisec.fraunhofer.de

Hannah Wester  
Telefon: +49 89 322-9986-130  
E-Mail: hannah.wester@aisec.fraunhofer.de

Fraunhofer Research Institution for Applied and Integrated Security (AISEC)  
Product Protection and Industrial Security  
Lichtenbergstraße 11, 85748 Garching (near Munich), Germany  
https://www.aisec.fraunhofer.de

\(^1\)https://github.com/Fraunhofer-AISEC/cpg