



SpecTrace & BatchEval



IoT Security has many facets



AI Cybersecurity Hackathon
Sponsored by SAP & KPMG



Hackathon Team



[Julian Stosse](#)



[Javier Peres](#)



[Joseph Chris Adrian Regis](#)



[Richard Meinsen](#)

SpecTrace

ensures that a firmware
follows it's specification

- during Development
- after Release



SpecTrace

aligns changes in the spec
with changes in

- the original source
- Assembler/C source from decompiled firmware

and shows

- misalignments
- wrong implementations
- manipulations



SpecTrace

just works



Demo Time

SpecTrace

Remark

- The test firmwares we used were generate by AI from specifications we used a prompt
- We see possible benefits in using the spec prompts for building a full specification in parallel to building the software (this part is not implemented yet)



BatchEval

Calculating a risk score for a firmware
based on

- static (SBOM, static code analysis, ...)
- dynamic (from monitoring)

data





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<https://github.com/stoyse/spectrace>