Mathilde OLLIVIER
Software Engineer

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Skills

Languages : C, C++, Python, Javascript, ASM x86
Security: Reverse engineering, (de)obfuscation, IDA
Technologies : RTOS, OpenWRT, Linux, GDB, Docker
Miscallenous: CI/CD (GitLab, Jira, Jenkins)
Fluent in French and English

Work Experience

Solent | Embedded Software Developer *Oct 2023 - Today*

Sagemcom (5 months)
- I develop a new power-saving plugin for 25 different models of home gateways
- Implemented an *Hardware Abstraction Layer* for the power-saving plugin
- Environment is a proprietary OS based on OpenWRT (embedded Linux)
- Bug fixing in a continuous integration/production environment
- Hardware testing

Safran (7 months)
- Participated in the creation of the board support package of a flight control computer for an electric taxi plane project
- Developed functions for the mathematical library in C and Power PC assembly
- Worked with Asterios, a Real-Time OS
- Lab testing on hardware with Trace32

CEA | Symbolic deobfuscation and its application to malware analysis | PhD *2017 - 2020*
- Wrote a relevant state-of-the-art of existing obfuscation and deobfuscation methods, with a focus on their impact on symbolic analysis
- Created and developed a software protection in C to thwart symbolic execution based analysis without introducing any execution overhead
- Presented my work at ACSAC 2019 - Lien
- Participated in several reverse engineering workshops

C Tutor - ENSTA Paris *2017 - 2020*
- Supervised first year students at ENSTA Paris for C tutorials
- Exercises preparation and exams grading

Devoteam | Penetration Testing Internship *2017*
- Conducted a research report on NFC technology
- Participated in pentesting missions and wrote reports

Projects

Created a web developer portfolio
- Developed during my OpenClassroom formation - you can see it here - info not up-to-date
- Chose architecture and design
- Developed with JavaScript and ReactJS

Education

OpenClassroom - Online fullstack developer course over 8 months   *certified in 2023*
CentraleSupélec - Cybersecurity major   *graduated in 2017*