

# Timothée Ravier

Computer science research engineer in open source systems security

<https://tim.siosm.fr>



## WORK EXPERIENCE

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- Since 2015 **Linux system security engineer at ANSSI (French Computer, Network and Information Security Agency), Paris (France)**  
Research and development on projects related to Linux system security.
- 2012 – 2013 **Linux system developer at SmartJog, Ivry sur Seine (near Paris, France)**  
Development in C for core project in SmartJog’s media transfer platform. Main focus was working on thread safety and performance improvements. Setup Continuous Integration system (Jenkins) and Code Review (Gerrit) for the project.
- 2012 **Internship at CEA (French Nuclear Agency), Bruyères-le-Châtel (France)**  
6 months Studied SELinux performance and impact on high performance computing tasks using already available and custom benchmarks. Studied SELinux architecture and implemented some ideas to reduce slowdown on several specific workloads.

## EDUCATION

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- 2013 – 2015 **Ph.D. studies at LIFO (INSA-CVL, Bourges) and LIPN (Paris XIII, France)**  
Thesis subject: Cloud and virtualized systems security. Studied container and virtualization technologies, distributed file systems, cloud orchestration, configuration and security enforcement.
- 2009 – 2012 **ENSI in Bourges, Engineering school (Bourges, France)**  
Studied programming, system administration, network management, system and network security, virtualization and cloud computing security, real-time computing and embedded systems.

## COMPUTER SKILLS

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Languages: C, C++, Rust, Shell, Python  
 Tools: Git, Autotools, CMake, GDB, perf  
 Security: SELinux, PaX, grsecurity, SMACK

## TEACHINGS

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- 2016
  - o Virtualization and security with QEMU/KVM
  - o Containers: availability, isolation and security
  - o systemd: system and service manager for Linux
- 2013
  - o System programming in C on Linux
  - o Development and compilation tools

## PROJECTS

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### **PIGA integration in the Linux kernel – Personal research project – 6 months**

Ported a Mandatory Access Control framework into the Linux Kernel. Created related userspace tools to manage security policies.

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### **Contextd capture – Work in pairs – 1 year**

Developed a Linux Security Module to generalize a Mandatory Access Control design for userspace applications.

## TALKS

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- FOSDEM 2013
  - o A walk through the Linux graphics stack and its security
- XDC 2012
  - o State of the Linux graphics stack security (X11&Wayland)

## LANGUAGES

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FRENCH First language  
 ENGLISH Fluent  
 GERMAN Basic knowledge

## INTERESTS

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- Music: Playing the Saxophone Soprano (Jazz)
- Dancing: Lindy Hop, Balboa, West Coast Swing
- Sports: Aggressive inline and freestyle slalom skating

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