

# Pierre-Yves Péneau

Security Analyst, PhD

██████████  
██████████  
██████████  
📧 peneau@riscure.com  
French



## Work experience

- Nov. 2021 - **Security Analyst**, *Riscure B.V.*, Delft The Netherlands.
- Jan. 2019 - **Postdoctoral researcher**, *High Security Laboratory at INRIA*, Rennes, France.
- Sept. 2021 Simulation and application of hardware fault injection on embedded systems.
- Oct. 2015 - **PhD in Computer Science**, *National Center for Scientific Research (CNRS)*, Montpellier, France.
- Oct. 2018 Integration of emerging non-volatile memory technologies in cache hierarchy for improving energy-efficiency.  
**Advisors:** Abdoulaye Gamatié, Gilles Sassatelli, Florent Bruguier
- 2016-2018 **Teaching assistant**, *University of Montpellier*, France.  
Computer architecture and embedded programming
- Feb. 2015 **Research assistant (internship, 7 months)**, *CS laboratory of Sorbonne university (LIP6)*, Paris, France.  
Operating system memory management on a manycore architecture  
**Advisor:** Franck Wajsbürt
- Apr. 2014 **Research assistant (internship, 4 months)**, *CS laboratory of Sorbonne university (LIP6)*, Paris, France.  
Memory management on NUMA machines with hypervisor  
**Advisor:** Gaël Thomas
- Apr. 2012 **JEE developer (internship, 3 months)**, *Auguria SA*, Nantes, France.
- Jun. 2011 **System administrator (3 months)**, *Wisiband*, Sainte Florence, France.
- Apr. 2011 **JEE developer (internship, 3 months)**, *Bull SAS*, Nantes, France.

## Education

- 2015-2018 **PhD in Computer Science**, *National Center for Scientific Research (CNRS)*, Montpellier, France.
- 2013-2015 **MSc in Computer Science**, *Sorbonne university*, Paris, France.  
Operating system internals, system-on-chip architecture
- 2011-2013 **BSc in Computer Science**, *Nantes university*, France.

## Computer skills

<i>Langages</i>	C/C++, asm (ARM, x86), Python, Java, shell script	<i>Tools</i>	Debugging with GDB, gem5 simulator, hardware probe for real time instruction tracing and analysis, version control system (git, svn, mercurial), Eclipse and other IDE
<i>Fault injection</i>	Clock glitch, basic knowledge on EMFI		
<i>OS</i>	Several Linux distributions, FreeBSD		

## Communication skills

<i>French</i>	Native
<i>English</i>	Fluent
<i>German</i>	Basic knowledge

## Interests

Space exploration  
Motorcycling  
Backpacking

## Miscellaneous

- 2016-2021 Supervision of interns (last year of BSc x3, last year of MSc x1)
- 2014-2015 Board member of the students' association at Sorbonne university
- 2011 French Robotics Cup, ranked 18/158
- 2010, 2011 French national contest between universities (RSSIL), ranked 2/27 in 2011
- 2009-2011 Developer of Arch Hurd, an operating system based on the GNU Hurd microkernel

## Selected publications

- 2021 **TRAITOR: A Low-Cost Evaluation Platform for Multifault Injection**, *Ludovic Claudepierre, Pierre-Yves Péneau, Damien Hardy, Erven Rohou*, International Symposium on Advanced Security on Software and Systems, Hong-Kong.
- 2020 **NOP-Oriented Programming: Should we Care?**, *Pierre-Yves Péneau, Ludovic Claudepierre, Damien Hardy, Erven Rohou*, IEEE European Symposium on Security and Privacy Workshops, Genoa, Italy.
- 2018 **Improving the Performance of STT-MRAM LLC through Enhanced Cache Replacement Policy**, *Pierre-Yves Péneau, David Novo, Florent Bruguier, Lionel Torres, Gilles Sassatelli, Abdoulaye Gamatié*, International Conference on Architecture of Computing Systems, Braunschweig, Germany.