

# Rémi Audebert

System Software Engineer

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## Experience

### Professional

- Nov 2016 – Current **Software Engineer**, *Google*, Zürich, Switzerland, <https://google.com>.  
Software engineering. Reverse engineering. Machine learning.
- Feb 2016 – August 2016 **System Software Intern**, *NVIDIA*, Santa-Clara, California, <https://nvidia.com>.  
Developped features for new and upcoming chips in the CUDA driver. Improved NVLink DMA engine scheduling algorithm on high-performance multi-GPU systems: C, Make, Python and shell scripting. Debugged chip and system specific bugs: gdb, windbg, kd.
- Sept 2014 – Jan 2015 **Security Consultant Intern**, *Secway*, Paris, France, <https://www.secway.fr>.  
Reverse engineered the cryptographic security of industrial programmable logic controllers using windbg and IDA Pro. Implemented a subset of the EtherNet/IP protocol with Python. Participated in computer systems security audits, both on-line and on-site CentOS system administration and network infrastructure.

### Collaborative and Personal Projects

- Jan 2014 – Feb 2016 **EPITA Laboratory of System and Security**, *LSE*, <http://blog.lse.epita.fr>.  
*Low-level projects*: x86 architecture, working on a IBM PC clone using a FPGA and a 80386SX.  
*Participant in CTF security contests*: solved reverse engineering, exploits and forensics challenges in a contest environment.
- Sept 2011 – now **Prologin contest organizer**, *French national programming contest*, <http://prologin.org>.  
Designed and implemented in C++ the game of the finals (2012). Linux system administration (Arch Linux, Ansible) and network operation (NFS, DHCP, DNS, PXE Boot) of 100+ computers (2014 – now).
- Sept 2011 – Jan 2015 **Evolutek<<, robotics lab**, *French robotics contest*, <https://bitbucket.org/evolutek/>.  
*Software engineering*: Wrote a RPC server in C++ then Go with a client library in Python to integrate the sensors, actuators and AI of multiple robots running Linux.  
*Mechanical engineering*: Designed, machined and assembled two robots, integrating multiple actuators and sensors.

### Teaching

- July 2015 – Feb 2016 **C and Unix**, *EPITA computer engineering school*.  
Teaching Linux, C and C++ programming, both at the system level and for algorithms design.
- Sept 2014 – Feb 2016 **Linux Kernel Development**, *EPITECH computer engineering school*.  
Gives Linux kernel development classes and workshops: configuration, device drivers, file systems, memory management, scheduling.

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## Educational history

- Sept 2011 – Oct 2016 **Computer science student**, *EPITA*.  
Engineering degree (Master). Major in system software: operating systems, driver development, real time and embedded software.

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## Skills

### Computer Technologies

Languages	C, C++, Python, Go, sh, Verilog, GNU make, C#, Java	Operating systems	GNU/Linux, Windows
Tools	Distributed VCS (git, hg), perforce, vim, gdb, windbg	Architectures	x86, x86_64, ARM

### Languages

English	Proficient	French	Native speaker
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## Further informations

Hobbies Reading, Science Fiction, RPGs and Rogue-like