

# Pierre Bourdon

*Building secure software at scale*

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## Experience

### Professional

- Jul 2018 - now **Senior Infrastructure Security Engineer**, *Google Switzerland GmbH*, [google.com](https://google.com).  
Designing internal hardening efforts for Google's production infrastructure, in order to make it more robust to internal and external threats. Focusing on microservice endpoints hardening and transport layer security.
- Feb 2016 - Jul 2018 **Senior Anti-Abuse SWE**, *Google Switzerland GmbH*, [google.com](https://google.com).  
Tech lead on Google Accounts credentials protection for Android, leading a team of 3 engineers and data analysts. Senior engineer on Google's Android device attestation service, distinguishing real devices from scripts and emulators.
- Dec 2013 - Feb 2016 **Production Security SRE**, *Google Switzerland GmbH*, [google.com](https://google.com).  
Helped run Google's internal security infrastructure at scale: key management, ACL storage, certificate authority, DDoS protection systems. Helped define best practices for running secure production services at Google.
- Mar 2013 - Sep 2013 **Production Security SRE Intern**, *Google Switzerland GmbH*, [google.com](https://google.com).  
Contributed major improvements to DDoS analysis tooling. Built a custom load testing infrastructure for critical security infrastructure components.
- Aug 2011 - Apr 2012 **Python backend SWE**, *Critsend, Paris, France*, [critsend.com](https://critsend.com).  
Internship then part-time. Development of backend services for Critsend's cloud emailing architecture. Productionized custom algorithms for early detection of spammy campaigns.
- Jun 2010 - Sep 2010 **System administration / Python SWE intern**, *alwaysdata, Paris, France*, [alwaysdata.com](https://alwaysdata.com).  
Administration of managed hosting servers and development of anti-abuse tools (automated phishing toolkits detection).

### Side Projects

- 2011 - today **Dolphin Emulator (Gamecube/Wii)**, *Open source project*, [dolphin-emu.org](https://dolphin-emu.org).  
Started as a core developer working on CPU, DSP and GPU emulation accuracy and optimizations. Moved to designing and maintaining infrastructure (CI, website, analytics) along with a few core contributions.
- 2018 **Nintendo Switch Linux**, *Open source project*, [github.com/fail0verflow/switch-linux](https://github.com/fail0verflow/switch-linux).  
With a group of console hacking enthusiasts (*fail0verflow*), released tooling to exploit a Tegra X1 bootrom vulnerability and run a free software stack on the Nintendo Switch gaming console. Contributed to a Coreboot, ATF and Linux port for the device.
- 2013 **libdrc**, *Open source research project*, [libdrc.org](https://libdrc.org).  
Reverse-engineered documentation and reimplement of Nintendo's wireless streaming protocols for the Wii-U console to gamepad communication. Work presented at the 30th Chaos Computer Congress.
- 2011 - 2014 **Participant in CTF contests**, *Team LSE & ENOCHEAT*, [ctftime.org/team/757](https://ctftime.org/team/757).  
Solving reverse engineering, exploits and forensics challenges in a contest environment. Won an on-site finals against Dragon Sector :-)

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## Education

- 2011 - 2013 **Student researcher**, *Systems and Security Lab (LSE), EPITA*, Studied security and low-level related software topics (kernel development, vulnerability exploitation, ...).
- 2008 - 2013 **Software engineering student**, *EPITA*, French "diplôme d'ingénieur", equiv. MSc. Majored in embedded software development.

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## Languages

English	Fluent (TOEIC: 990)	French	Native speaker
Japanese	Basic proficiency (JLPT N4)	German	Basic proficiency