Loïc Carr

DevOps Engineer

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Double nationality: France / New-Zealand

▬▬▬ Experience

May 2021 – present	**Software Engineer**, *Amazon*, Seattle, WA.

Design and Develop highly scalable cloud software architectures in an high stakes and fast-paced environment.
- AWS technologies

2019–2021	**Software Engineer**, *McGraw-Hill (ALEKS)*, Irvine, CA.

Working in the infrastructure / AI integration team, developing ALEKS artificial intelligence platform (Frontend & Backend).
- Integrating and scaling ALEKS AI models for millions of users in the US.
- Stack: ES6, GNU+Linux, MySQL, Perl, Python, Linux, internal tools

2017–2018	**Storage Software Engineer**, *Scaleway*, Paris, France.

Design and integration of of a multi-PetaBytes distributed Object Storage service (S3) that provides a fast and low latency (100 Gbits, <50ms 99th per) cloud storage service to Scaleway clients.
- Automating hardware and software **scaling procedures**
- Studying and testing the system **reliability and failure modes**
- Building a high volume **real-time monitoring stack**

The tools and the stack I've worked with daily:
- System: GNU+Linux (kernel, sysctl), ZFS, Zookeeper, eBPF, Python, C, Go, ELK, Prometheus
- Network: BGP/ECMP, TCP, HTTP2, REST/S3 API, HAProxy

2017 (2 mo)	**Software Development Internship**, *Videolan (VLC Video player)*, Paris, France.

This project goal was to provide **bindings between ElectronJS and VLC Media Player lib** via a lean API with a low performance overhead.
- Tech: C++, Javascript ES6, VueJS, WebGL, Google V8

2016	**President of the students' IT network**, resel.fr, IMT-Atlantique.

The ResEl provides Internet access, TV over IP, web hosting and mail hosting for more than **800 people** over two campuses, with a yearly operation **budget of 50,000 euros**.
- **Manage** a team of 10 students admins to monitor continuously improve the service quality
- **Develop and deployed** various automation tools like account management, statistics and fee payments

▬▬▬ Education

2015–2019	**IMT-Atlantique**, *(formerly Télécom Bretagne)* , France.

Master of Engineering in Information Technology and Computer Sciences

Specialization:	**Distributed Systems and System Engineering**
Projects:	- Java compiler implemented in Ocaml
	- MLP Neural network for FPGA
	- Distributed cloud processing of hyperspectral images
	- Reliable Network protocol reimplementation (subset of TCP)

2012–2015	**Lycée Michelet**, Paris, France.

Intensive preparation for the national competitive entrance exams to leading French Engineering Schools, specialising in Maths, Physics and Engineering.

▬▬▬ Side Projects

2019	**Marque-places.fr**, *side project SaaS*.

Marque-places.fr (French) is a web-app to help event organizers create beautiful place-cards for every occasion. I run the project during the weekends.
- Stack: Python, puppeteer, VueJS, SVG, webpack

2016-2017	**Connected Hives**.

Initiated a project to **study the disappearance of bees using connected hives**. Using various sensors and cameras, we installed 5 hives on the campus. The experiment was terminated early due to Asian hornet attacks. The project has helped to raise awareness of the issue on the campus.
- Stack: LoraWAN, Arduino, Raspberry PI, PosgreSQL, bee hives

2015–2017	**President of the Astronomy Club**, *IMT-Atlantique*.
	Organized sky-watching outings on the campus with 5 passionate students. I also helped a lot on the mechanics, electronics and computing for the campus' 4 meter telescope automation system. www.astronomie-pointedudiable.fr
2015	**Open Source Android App**, *Shaarlier*, Side Project.
	Mobile app with more than **500 active users** to share links on Shaarli social network. Playstore - Github
	∘ Stack: Java, XML, SQLite, HTTP

Various tools I love

Dev	Python, Kotlin, Typescript, OCaml, C, Rust, Go
Ops	GNU+Linux, Ansible, Bash, Hashicorp Packer & Terraform, Docker, Kubernetes, Prometheus, ELK
AI/ML/stats	Numpy, Pandas, scikit-learn, Pytorch
Data	ZFS, PostgreSQL, ELK, Redis

Languages

English	Fluent	French	Mother language
Spanish	Working knowledge		

Interests and Hobbies

Music	Guitarist and pianist
Sports	Running, badminton, sailing, windsurf, skiing
Interests	Free software, entrepreneurship, DIY, global warming and waste reduction awareness