

# Xavier Maso

software engineer, applied mathematics student

(+33) 621 · 822 · 328

<http://xaviermaso.com> ♦ [xav.maso@gmail.com](mailto:xav.maso@gmail.com)

## Skills

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### Software development

#### Languages



#### Libraries / frameworks

Ruby-On-Rails | ExpressJS | Angular | SailsJS | Pygame | XNA | Zend | jQuery | CodeIgniter

### Systems administration

- Linux: Ubuntu, Debian, Raspbian, Arch, NixOS.
- Continuous integration: Ansible, Docker, Jenkins, Travis, Capistrano.
- Web technologies: Nginx, Unicorn, Apache2, Express (Node.js).
- Databases: MySQL, PostgreSQL, Redis and MongoDB.

### Soft skills

- Team management: implement the environment which allows to develop the products and achieve goals.
- Used to Agile methodology, especially Scrum, and Lean approach. Pair programming and TDD practice.
- Speaker: animation and presentation about a product, a project or to share experiences.
- Interpersonal: listening and understanding individuals to facilitate interactions within a group.
- Marketing: around and through a product and / or company to communicate values.

## Professional experience

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### Mozilla Corporation

May 2018 – August 2018

Web security intern, Scanning modern web applications with OWASP ZAP

London, United Kingdom

The Firefox Operations Security team protects the core services and release engineering infrastructures Mozilla relies on to build, ship and run Firefox.

OWASP ZAP is a free and open-sourced security tools to help automatically find security vulnerabilities in web applications.

- Research and development in Javascript and the DOM API: keep track of events and interactions happening in a webpage. Released the @zapproxy/front-end-tracker library on npm.
- Development of a ZAP add-on to create a framework for pentesters to run security scripts directly in the browser.
- Research on modern web applications (Single Page Applications) vulnerabilities.
- Part of a distributed team and contributing to an open-source community.

### Orange Application for Business

June 2017 – August 2017

System administrator, Securing workstations

Bordeaux, France

OAB is a subsidiary of Orange S.A developing and hosting services for businesses.

Integrated to an operations team of four, my mission was to secure their Linux workstations.

- System administration: Arch, Ubuntu, Debian.
- Define and apply good security practices for laptops and mobile devices.
- Development: ansible roles, audit-ssh-client-config script.
- Research: securing the boot process (anti-evil maid), Nixos, Public Key Infrastructures.
- Training and communication about the security practices: write documentation, create tutorials, run workshops.

### **RedShield Security Ltd**

*Software engineer*

*January 2015 – April 2016*

*Wellington, New Zealand*

Shielding-with-a-service company providing a web application firewall, vulnerability scanner and analyzer to assist IT departments ensure the security of their systems.

- Development in Ruby and Javascript.
- Configuration of production and CI servers (Jenkins).
- Debugging, automated testing.
- Research and development.
- Security: offensive, secure development, incident response.

### **CER SNCF**

*Full-stack developer*

*June 2012 – Oct 2014*

*Bordeaux, France*

Distributed all over the Aquitaine and Poitou Charentes French regions, the CER (for Committee of Regionnal Establishment) provides services to SNCF's workers.

#### **First missions**

- Web development in PHP with the Zend framework.
- Production environment management: Nginx front-end with FCGI, PostgreSQL production database.
- Team work with Git and automated deployment on top of this VCS tool.
- Adaptation of our tool for another CER: needs analysis, objectives definition, integration to our development and deployment processes and tooling.

#### **Project, subject of my master thesis**

- Build a website dedicated to SNCF's employees: tasks and planning definition, resources and skills affectation to provide this new service within six month with a three person team.
- The application can be found at [cheminot.cer-sncf-bx.org](http://cheminot.cer-sncf-bx.org) .
- Communication and product launching: define and reach targets, follow the adoption and usage of the product.
- Integration within the existing information system: shared databases services, web server deployment.
- Quality management by software testing using Rspec and Capybara.
- Git and Capistrano for code management and automated deployment.
- Back-end written in Ruby-On-Rails. Front-end used Slim, SASS and CoffeeScript.
- Server on Ubuntu 14.04, database is PostgreSQL, Nginx and Unicorn as web stack.

#### **Others**

- Information system maintenance: Zimbra mail, Windows2008 domain, Debian web servers and support.
- IT service management: needs analysis, tasks definition, listing of skills and resources to prioritize our work.
- Help in recruitment for IT service: define required skills, job scope ; participate during interviews.

### **Cabinet P.PI/4**

*Web developer intern*

*Summer 2011*

*Bordeaux, France*

- Web development in PHP with the CodeIgniter framework.
- Seven students team organized with the Scrum method.
- Interviews with client for needs analysis.

## Education

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### University of Bordeaux

*College of Sciences and Technologies*

2016 – today  
Bordeaux, France

- Master Mathematics and Applications: Cryptology and IT Security.
- Refresher training in Mathematics.

### Ingésup ([www.ingesup.com](http://www.ingesup.com))

*Information System Expert*

2009 – 2014  
Bordeaux, France

Five year of university studies in computer information technologies (specialty in Development).

- Member of the security lab: research and learning about exploitation and penetration testing.
- Member of the games lab: participation in video game development contests.

### Lycée La Boétie, Academy of Bordeaux

2005 – 2009

French Baccalauréat in Sciences (specialty in Mathematics), with honors.

## Projects

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### Personal dedicated server

*server administration*

2014 – Today

Co-owner of a dedicated server, used to manage personal services such as Gogits, Owncloud, Selfoss, Etherpad, Wallabag and websites.

- Running on Debian systems, using Ansible for automation and Docker containers for modularity and isolation.

### xaviermaso.com

*web development*

2015 – Today

My personal website.

- Front-end written in Elm, back-end powered by ExpressJS.
- Sources on Github: [github.com/Pamplemousse/xaviermaso.com](https://github.com/Pamplemousse/xaviermaso.com) .

There are more: abandonned projects, dirty hacks that I am not proud of anymore... Have a look on my website: [xaviermaso.com#projects](http://xaviermaso.com#projects) .

## Hobbies

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### Reading

sciences  
sociological and political essays

### Challenges

security  
root-me, w3challs

### Sports

muay thai, diving (PADI Advanced OpenWater)  
former judoka, football and handball player