

# Axel Faure

Architect / Lead developer

Paris  
France

 axel-faure.com

 axelfaure

## Experience

- Sept. 2016 – Present **Lead developer**, *MOMA (Modélisation, mesures et Applications)*, Paris, France.  
Architecture, development and operation of IoT, big data & smart grids applications and platforms
- February 2016 – July 2016 **Internship - embedded systems engineer**, *MOMA (Modélisation, mesures et Applications)*, Paris, France.  
Integration of a Linux system on ARM and development of kernel modules/drivers
- September 2014 – February 2015 **Internship - software engineer**, *Geneanet*, Paris, France.  
Creation of search engines and targeted advertising systems using Elasticsearch
- April 2013 – June 2013 **Industrial placement as junior programmer**, *Michelin*, Clermont-Ferrand, France.  
Creation of a reporting plug-in for a master application in an industrial context using .Net technologies.

## Education

- 2013–2016 **Computer engineer**, *Université de Technologie de Compiègne (UTC)*, Compiègne, France.  
Fall 2015 **Exchange semester**, *University of Rhode Island*, Kingston, USA.
- 2011–2013 **DUT informatique SI**, *IUT Université d'Auvergne*, Clermont-Ferrand, France.  
equivalent to a two years Bsc in Computer Science with Embedded Systems option
- 2010–2011 **Prépa MPSI**, *Lycée Blaise Pascal*, Clermont-Ferrand, France.  
equivalent to year one PrepSchool for Engineering Schools
- 2007–2010 **Baccalauréat Scientifique**, *Lycée Gay-Lussac*, Limoges, France, *with honors*.  
High School Diploma in Science

## Languages

- French Native speaker
- English Upper intermediate level (TOEIC : 955/990 – TOEFL :102/120)
- Spanish intermediate level

## DevOps and system

- System administration Administration of **Linux** systems (mostly **Debian**-like)  
Notions of BSD system administration  
Setup of VPN connections, configuration of DNS, mail servers, security and monitoring, Bash scripts...  
Creation of installation packages and daemons using sysVinit or Systemd
- Cloud Expertise of several **AWS** solutions (VPC, EC2, Zone53, Aurora, ElastiCache, ELB, S3, Glacier, SNS...)  
Automated provisioning using **Terraform** and **Ansible**
- Versioning Expertise in **git**  
Notions of subversion  
Deployment, maintenance and advanced usage of Gitlab
- CI/CD Administration and usage of **Jenkins**  
Setup of complete pipelines using jenkinsfiles  
Setup of **automated testing** systems
- Containers and virtualization Creation of **docker** containers  
Usage of virtualization systems under Linux (QEMU, KVM, Virtualbox...)

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## IoT and low-level

- Languages Advanced skills in **C** and **C++**  
Strong interest and professional experience in **Rust**  
Notions of assembly
- Linux Experience of Linux **driver development**  
Usage of device tree  
Compiling of tailored kernels  
Interested in **Yocto**
- Communication Usage of IoT focused communication protocols (mostly **MQTT** and CoAP)  
Knowledge of the specific properties of some networks (GPRS, 3G, NB-IoT, BLE, Zigbee, Z-Wave, Thread, CPL, Lora, Sigfox...)

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## Web

- Languages and frameworks Professional usage of **Javascript** (ES5/ES6): **node.js**/Express, **AngularJS**  
Experience of **Django**  
Advanced knowledge of **PHP** (up to version 5) and **Symfony**  
Some experience of **Typescript**
- Tools NPM/Yarn, composer, Grunt, Gulp, Babel, WebPack  
SASS/LESS, bootstrap, Foundation
- Servers Good skills configuring **Apache2**  
Some experience of **Nginx**

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## Databases and other technologies

- Databases SQL: Expertise in **MySQL/MariaDB**, **PostgreSQL**, **AWS Aurora**  
No-SQL: Expertise in **Redis**, notions of **Elasticsearch** and **Cassandra**
- Other languages Expertise of **python** 2 and 3  
Experience of **C#** and **Java**  
Notions of **LISP** and **Prolog**  
Interest in **Scala**, **Go** and **Elixir**
- Other technologies Usage of **Celery**  
Interest and good understanding of topics such as machine learning, **Hadoop**, **Openstack**, blockchains and smart-contracts

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## Misc

- Organization Experience and good understanding of **SCRUM** and **Kanban**
- Methods UML, design patterns, notions of Merise
- Architecture **Design** of specific software as well as full **platforms** with web interfaces and **IoT** integration. Selection of technologies, **scalability** management, confidentiality and **security** aware design. Definition of implementation plans based on **iterative development**.
- Communication Frequent writing of study **reports**, **documentation** and **communication media**.  
**Technical presentations** of software solutions or proposed architectures in front of various audiences (technical managers, decision makers, future users, shareholders...), often in an international context.  
Used to direct interactions with stack-holders and clients.
- And also... Assessment of applicants as part of recruitment process  
Organization of internal training sessions  
Driving role regarding the integration of new tools and practices  
Involvement in definition of potential business models on some projects

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## Activities and Interests

- Cinema both American and international (T. Malick, D. Aronofsky, S. Kubrick...)
- Reading science & fictions (Tolkien, Clarke, Asimov...)
- Technological survey in particular (but not only) on topics such as cybersecurity, open-source and AI
- Genealogy a remnant of my internship at Geneanet