

Dr. Pascal Grange

Whatever happens is the only thing that could have. Do your best. Improve. Extreme Programmer.

phone number

postal address

Regularly attend and sometimes speaks in agile software related conferences including (in french):

- *à la chasse aux faux semblants* — https://bit.ly/hunting_fails
- *développement guidé par les tests de rôles ansible* — https://bit.ly/tdd_ansible

Maintain or contribute to several open-source projects, including:

- bash unit testing enterprise edition framework for professionals — <https://bit.ly/bash-unit>
- SOAP client/server API for Java until SOAP is deprecated — <https://bit.ly/soap-dust>

English: fluent / French: native / German: some basics and willing to learn more

Professional Background

December 2023 - present: Founder

21research

Building, securing and hosting a Bitcoin Lightning node. Exploring the development of a **Lightning Hardware Wallet**. Developping LN paid services.

Bitcoin, Lightning, eclair, Phoenix, Ledger, Scala, Kotlin, security, operations

September 2022 - present: Senior Software Engineer - Hydra

IOG <https://iohk.io>

Developing **Hydra**, the layer 2 scalability solution for **Cardano**: increase transaction speed through low latency and high throughput and minimize transaction cost.

Cardano blockchain, state channels, security, Open Source, Ensemble Programming, Haskell

May 2020 - August 2022: Senior Software Engineer

Sinch <https://sinch.com>

Expanding a local (France) Software as a Service product to a global worldwide solution. Taking into account privacy and local regulations, security and cost of ownership. Ensuring software teams autonomy by progressive and supported change. Moving from a baremetal legacy solution to the cloud to achieve this.

AWS, terraform, Cloud Development Kit, prometheus, ops'genie, Python

Implementing 24/7 on-call duty contract to cover all timezones. Fighting against alert fatigue, identifying key critical alarms. Facilitate post-incident reviews.

Problem Solving, facilitation, metrics, learning together

March 2018 - May 2020: Chief Information Security officer - Infrastructure Engineer

LGO <https://lgo.group/>

Building and securing the leading (at the time) institutional Bitcoin exchange in Europe. Approx.

\$500.000.000 equivalent traded on the platform until february 2020. No major incident. *Funds are safu.*

High performance (target several millions orders per second). Test driven infrastructure as code.

Automated failure management (disk expansion, service restart, machine restart). Implementation of an on-call contract (just in case).

role-unit, bash_unit, ansible, packer, terraform, consul, nomad, vault, GCP, aeron cluster, raft

In charge of writing and implementing the security policy for the company, the trading platform and funds management.

hardware security, pentest, bug-bounty, training, risk assessment, implementation of security reviews

October 2011 – May 2018 : Manager of expert teams in web, telephony and NFC

Orange Business Services – Orange Applications for Business

Management of a team of five systems and network engineers and one project manager.

agile software development, lean-thinking, standards, technical sharing workshops, recruitment

Supporting change to evolve from a culture where system administration is performed *manually* to a *devops* and *infrastructure as code* culture.

ansible, docker, test driven software development, git, gitlab-ci, pair-programming, mob-programming

Frequent management of security audits, formalization of responses and follow-up of the countermeasures when needed.

In charge of designing, costing and building several customer platforms. Responsible for their quality of service, security and profitability for the company:

- multi-country web authentication platform using smartphone — *Mobile Connect*
- shared cryptography service — *Hardware Security Module as a Service*
- e-commerce website — client annual income over 150 M€

debian, ha-proxy, varnish, automation of security patches, ncipher Hardware Security Modules

In charge of building a mobile NFC payment platform. Responsible for its quality of service and security.

Mastercard certification, payshield Hardware Security Modules, mobile carrier networks interconnection

In charge of a telephony platform with active replication over three distinct geographical areas.

debian, redhat, apache, tomcat, mysql, OMS Interactive Voice Response, puppet

November 2005 — September 2011 : Software Developer

Orange Business Services – CVF

Test Driven Development; frequent writing of executable specifications; building several continuous integration platforms; team leadership, project management and writing of commercial offers.

2011 — NFC access control for Orange corporate headquarters:

- Design of the communication protocol between card readers and SIM card embeded software
- Development of the SIM card embeded software

*javacard, NFC, SIM, OTA, test driven development
subcontractor management, partnership coordination*

2010 — natural language automatic phone reception (more that 100 000 calls a day):

- Implementation of executable specifications (more than 3500 assertions)

Java, Javascript, python, Voice XML, FitNesse

2005-2006 — Video portal for mobile phones:

- Introducing the team to test-driven development
- Design and implementation of an automated acceptance testing tool

September 1999 — August 2005 : Teacher in higher education

ENSEIRB – Université Bordeaux 1 – IUT Bordeaux 1

Education/training

2022 — Strategic Domain Driven Design - **Maxime Sanglan-Charlier**

2019 — FunAr functional architectures through practice — **Arnaud Bailly et Frederic Merizen**

2016 — LEAN et Excellence Opérationnelle — CUBIK Partners

2015 — Certified *ethical hacker* — EC-Council — Sysdream

2013 — Neuro-Linguistic Programming Technician — L'Institut de formation PNL

2005 — Ph.D in computer science — *Systèmes distribués : transparence, masquage et outils associés*
Université Bordeaux 1, Mention Très honorable