Laurent **COUSTET**

LEAD DEV · DEVOPS · SYSADMIN · TECH ENTHUSIAST

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12-08-1985

"First cause of failure: keyboard to chair interface."

Skills

DevOps	Ansible, Docker, Gitlab-CI, Travis-CI, AppVeyor, Conan(.io)
https://	Django, PostgreSQL, Django-Rest-Framework, Webpack, Flask, AngularJS, VueJS
Sysadmin	* GNU/Linux (Debian++), OpenBSD, KVM, Windows
Networking	Linux, OpenBSD, IOS, bird, OSPF, BGP, IPSeC L2TP, ...
Programming	Python, C, Qt, PyQt, GoLang, Shell, JavaScript, TypeScript, Java
TimeSeries	InfluxDB, TimescaleDB, Graphite, Grafana, RRDTools
Languages	French, English

Experience

CLARISYS Informatique
Toulouse, France

DEVELOPPER AND CTO
2004 - Present

- Application developpment for medical analysis laboratories (LIMS). >250 kloc, written in Python, using PostgreSQL, PyQt, PyTest. CLARILAB
- Qt3 to Qt4 migration, then to Qt5. Python 2.7 to Python 3.5+ migration on all the codebase.
- C++ programming for mission critical application using Qt. (event filters)
- Embedding of Sentry on every system (backend and client).
- Java developpement using JasperReports for «pixel-perfect» report generation.
- Medical oriented datawarehouse developement using InfluxDB, Grafana and advanced PostgreSQL queries and optimizations.
- Toolchain creation and automation for a multiplatform binary distribution of Python, PyQt and all the dependencies using Conan, Gitlab CI, setuptools and docker containers
- Wrote a python /C wrapper for the french social security card system libraries (Sesam Vitale).
- Wrote a full public web application for medical records devliery (patients, clinic, doctors) Technologies used: AngularJS, Webpack, DjangoRestFramework, PostgreSQL, UWSGI, PyTest (TDD with 95% CC). CI with Gitlab. Full deployment using Ansible (Pre-configuration and version updates) CLARIWEB
- Grunt to Webpack migrations, Python 2 to Python 2 /3. Setuptools to wheels, including webpack's generated assets.
- Wrote an opensource computed management and ticketing system for CLARISYS using Django/Dojo CLARITICK.
- Hardware: creation of a remote barcode scanner device (FSK -> wifi). PCB: EagleCAD and mass SMD reflow @ home, hand vacuum pick and place. μc Atmel 328P, firmware C. Features: PS/2, I2C, multi-node wireless, RS232.

CLARISYS Informatique
Toulouse, France

SYSTEM ADMINISTRATOR
2002 - Present

- Operational management and optimisation of 100's of PostgreSQL clusters (TiB OLTP and some Datawarehouses).
- PostgreSQL disaster recovery (block level corruptions). (dd and gdb are your friends!)
- LVM2 /thin provisioning tool for ganeti: ganeti-storage-lvmthin.
- Medium size subversion to git migrations, Gitlab /Gitlab-CI (Docker) implementations.
- Author of a business router built around PCEngines APU and Debian (custom linux patches required). Creation of a simple backup/recovery system using shell scripts and grub manipulations on bootable USB drives. Custom linux distribution (.deb) built automatically in CI. Many debian backports and some proprietary software packaging. Using ansible for image creation and customization.
- Author of the opensource MLVPN software for high availability VPNs in mission critical environment. (IPv4 /IPv6, BGP, Linux Foo over UDP).
- Author of the «High Availability» product for CLARISYS using Debian, Ganeti, DRBD. Image generation using Ansible and Libguestfs.
- Author of an efficient and secure backup and recovery tool for Ganeti /LVM2 using Python, standard LVM2 and Flask. Restore tool written in python, distributed as a standalone PyInstaller executable.
- Munin tooling for simple predictive alerting.
- Setup of an automated installation network for servers and desktops. Creation of a simple Ansible automation GUI (FAI, Ansible, PXE, Microsoft MDT, Django /JQuery)
- Author of solution for privileged access management, tracing all TTY outputs (perl, postgresql, C).
- Author of a VoIP fax platform (without T38). HTTPS API to FAX, using Hylafax, Freeswitch, gofaxip and some golang programming
- Setup and management of Asterisk VoIP systems. TFTP /HTTP autoprovisioning.
- Creation of an automated ReStucturedText transformation platform to PDF and HTML. (Gitlab-CI, Docker, sphinx)
- Small tools for virtual machines management using python and curses. (network, passwords, software updates, ...)

Autre

Wireless-Lyon
France

SYSTEM ADMINISTRATOR
2003 - 2004

- Creation of an open WiFi network for the city of Lyon (FON before FON basically). Redundant VPNs using Zebra, BGP, OSPF, PPP and FreeRadius / MySQL. Creation of many QoS bandwidth management using HTB3 and SFQ.

PCRézoo
Toulouse, France

LANPARTY STAFF MEMBER
2001 - 2003

- Fast automated server setup using Debian and FAI (Diskless NFS)
- Rapid network deployment for more than 600 attendees
- Network monitoring (MRTG, custom RRDTools scripts, ...)

debian-fr.org
Toulouse, France

MAINTAINER
Since 2001

- Author of a documentation website using PHP and MySQL (Dead).
- Author of many small papers around Debian in French
- Then after the dismiss of the website, evolution to a Discourse forum (Ruby on Rails)

Association Touloukart
Toulouse, France

PILOT
2016 - Present

- President of TOULOUKART, karting promotion in Toulouse, France
- Vice champion of the ”championat du sud Rotax 125 DD2”, 2017
- Champion of the ”championat Jean-Claude Sanchez Rotax 125 DD2” 2018
- Participation to the French championship KFS 2018 (4th rookie)