

Skills

Coding	Defensive programming in : Ada , C , Lua , JavaScript , Python, Scripting (Dash)
OS	GNU/Linux (Debian & Red Hat), Windows (XP Pro, 7 Pro, 10 Enterprise LTSB), macOS
Virtualization	KVM (libvirt, virsh), Xen (paravirtualization, PVHVM, PVH), VMware, QEMU, VirtualBox
Storage	ZFS, Btrfs, ext4, Linux RAID (mdadm), DRBD, dm-crypt (cryptsetup) AES & Serpent
Networking	SSL/TLS (auto-renewal, letsencrypt), nginx, HSTS/DNSSEC, cURL, bonding (high-availability & link aggregation), pfSense, OpenVPN
SAN, NAS	AoE, NBD, iSCSI, NFS, Samba (SMB/CIFS)
Recovery Erasure	TestDisk & PhotoRec, grep (sic), custom programs shred, dd, hdparm, the hammer
Backup	Reverse Incremental, Incremental, Differential
Hosting	Seafile, ownCloud / Nextcloud, Mumble, TeamSpeak, Wordpress, Ghost, GitLab, Gogs
Remote Access	SSH, VNC, Spice, TeamViewer, NoMachine

Professional experiences

2017-2018	Teacher Programming courses (Ada, C, Lua, JavaScript) for college & engineering school students, freelancers...
2017	System administrator – NaN (Not a Number) Installation of an open-source programming school in Abidjan (Côte d'Ivoire). Automatic deployment of 50 iMacs on Linux Debian (preseed) in triple-boot Linux, MacOS and Windows (MacOS & Windows UEFI entries disabled by default). Creation of login system and centralized authentication (SSO), https://xavier.is/nan.jpg . KVM-based virtual server (DHCP, DNS, NTP, SSH, Squid, CCTV, etc). Efficient incremental synchronization (difference of snapshots), periodic (every 5mins) of each student's user directories with the server.
2017	System administrator – Thot Deployment of a Gogs forge. Development of a KISS CI (Continuous Integration) script through Git Hooks to manage the micro-services configured with environment variables: <pre>#!/bin/sh export PASSWORD=●●●●●●●●●● export API_PORT=3006 /bin/ci</pre> Updating, restarting and stopping, both manual and automatic (on crash or each specific git branch push).

- 2013-2017 IT Service – Freelance
- Professional clients:
 - Barbier Luminaire: reinstallation of all workstations, installation of the rack, servers, remote & scheduled management of in-store advertising touchscreens, recovery of thousands of customer accounts from the ERP database, installation of a newsletter (phpList) and imports of customers, virtualization of Windows Server on Xen with direct access to a network card (PCI passthrough).
 - Sophie Lesort-Pajot (orthophonist): Assembly, installation and maintenance of the workstation (XP and 7 Pro).
 - Sophie Zatenko (optician): Workstation maintenance, configuration of a new router.
 - Dolus Pneus (garage): Emergency replacement of a defective HP server, gradual reinstallation of the entire IT system simplifying the architecture, implementation of a reliable backup.
 - Orpi SETI (real estate agency): Intervention to reconfigure emails on 5 workstations.
 - Le Caveau (bar & restaurant): Repair of a flooded, oxidized computer, installation of a fixed Raspberry Pi.
 - Individuals:
 - Support, maintenance, on-site and remote troubleshooting.
 - Development: real-time backup for Windows, file deduplication.
 - Data recovery from faulty disks and corrupted file systems with Testdisk suite and custom disk cloning programs (dichotomous traversal of intact portions of the disk).
 - Development of multi-platform games with SDL (binding in Ada), one-time pad (Vernam cipher).
 - Wrote a Windows 10 installation tutorial: <https://quaedam.org/win10>
- 2015-2016 System administrator – [BeCoast](#) startup
- Dedicated Xen servers and their associated VMs (under Debian & Red Hat), some of them NAT-ed, others bridged and the majority have a dedicated IP.
 - Self-hosted DNS management (custom through GLUE records).
 - Thin provisioning with ZFS on Linux.
 - Installation of a secure email server observing the best anti-spam practices (SPF, DKIM, DMARC).
 - Deployment :
 - Webmail (Roundcube, then Rainloop)
 - GitLab forge
 - Monitoring with netdata
 - Collaborative communication platform: Mattermost (Slack alternative)
 - File hosting system: Seafile (Dropbox alternative)
- 2008-2012 System administrator – SR Infosystèmes (part-time contract)
- Migration of a VMware disk image (vmdk) to Xen (with paravirtualized drivers).
 - Immortal virtual machine with Xen, Remus & DRBD (manually patched and recompiled). Benchmarking for the implementation of a SAN: iSCSI, AoE and NBD.
 - Optimization of the ext4 file system on RAID (stride, stripe-width, no lazy init).
 - Network cabling (RJ45 crimping, wiring closet, labelling, etc.), troubleshooting, installation, server and workstation optimization.
 - EHPAD Notre-Dame: 30 workstations, reinstallation of all systems and management of all accounts, security policies, Windows Server Xen-based virtualization and installation of an antivirus (ClamAV).

- Set-up of Wi-Fi (port of Saint-Denis d'Oléron, Les Gros Joncs camping...).
- 2008 Wrote a user manual for the Nagios monitoring software.
Discovery of the reverse SSH on port 443 (to bypass NAT, Firewalls...).
- 2006 Jacuru: Installing a Samba NAS with RAID 1 (mdadm) encrypted (dm-crypt) disks, the spare disks are sleeping and woken up if necessary.
cron scheduling of network sharing access hours.
Overwriting the password of a Windows XP administrator account (to regain access).

Education

- 2013 [42 School](#) (first promotion) – Paris
- 2011 1st year of Bachelor's degree in Physics and Chemistry – University of La Rochelle
- 2011 Baccalauréat Scientifique

More Informations

- Interests Chess, hiking, electronics, video games (Guild Wars, Overwatch...)
- Languages Technical english