Marc BENINCA

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System / Software architect

Exploring Information Technology for decades, I am primarily interested in:
- booting, installing, configuring, securing and maintaining operating systems
- modeling, implementing, updating, integrating and deploying software projects

System

- mastery of containerization and virtualization concepts
- mastery of EFI and BIOS mode booting processes with GRUB
- automation of operating systems backups and restorations
- deployment of configured and secured GNU/Linux systems:
  firewall, keypairs, connections, transfers, certificates, authorities

Development

- mastery of source control management with Git
- miscellaneous automations with Python and BASH
- various Java projects around specific domains:
  - preparation and replay of aeronautical missions
  - digital cartographic engines and file formats

Joint Directorate of Infrastructure Networks and IS
DIRISI, Ministry of Armed Forces, France

Defense Application Development Center
CDAD-BDX (previously CIGAA), Nansouty barracks, Bordeaux

Methodology / Quality: continuous process improvement

2023 ↑ 2019
- setting up and maintaining tools: Git, Gitea, GitLab, Jenkins, Maven, Nexus, Node, Sonar
- Python scripting for offline mirrors: CentOS, Debian, Maven, NPM, MSys2, etc.
- writing and maintaining BASH scripts making MSys2 usage a better experience
- writing technical documentation, Ansible playbooks and roles
- conducting studies and writing methodological documentation
- training system administrators in BASH, Debian, Git and GRUB (UEFI / BIOS)
- migrating Continuous Integration virtual machines from vCloud to vRealize

Architecture / Security: virtual infrastructure streamlining

2018 ↑ 2017
- administration of a VMware vCloud with virtual machines and LXC containers
- Python scripting for APT mirrors, Git repos, OpenSSH keypairs and Sphinx docs
- SSO architecture with KeyCloak/WildFly + MariaDB (Galera) clusters and HAproxy
- training developers and system administrators in Git, LXC, NginX and GRUB
- writing ReStructuredText documentation

Innovation: modernizing development

2017 ↑ 2016
- installation of a development network: stations and LXC server running Debian
- Python and BASH scripting for GRUB, CloneZilla, Debian, DebMirror and PanDoc
- implementation of a source control management methodology with Git
- training developers and system administrators in Git, LXC and BASH
- writing MarkDown documentation

Air and Space Force
AAE, Ministry of Armed Forces, France

Operational IT Aerial Groupment
GAIO (previously CSIO), Air Base 118, Mont-De-Marsan

Forge: migrating a software forge, from SubVersioN to Git

2016 ↑ 2015
Writing of an administrative BASH program, allowing on the Debian server:
- creation, privilege escalation and removal of developer user accounts
- automatic generation and distribution of SSH authentication keys
- builds of individual BASH scripts making Git easier to use with multiple projects

MELISSA New Generation: reimplementation of MELISSA in Java

2015 ↑ 2008
- writing a full cartographic engine based on PNG images and XML metadata
- simultaneous programming of EEPROM modules for Mirage onboard computers
- management of industrial ADL (Airborne Data Loader) equipment, flashing
  DTM (Data Transfer Module) induction cards used by AlphaJet onboard computers
- import of KML or KMZ files to display a layer of tactical situations (SITAC)

Military Air Experiments Center
CEAM, Air Base 118, Mont-De-Marsan

EVA: Aircraft Display Screen

2007 ↑ 2005
On-board real-time display and recorders for Mirage F1 CR aircrafts
- writing an application in Visual Basic using AutoIt to drive software
  recording GPS position and video signals from onboard video cameras
- design of a dedicated embedded system with Windows XP Embedded Studio

MELISSA: Logical Elaboration Module for Simplified Overflight Info

2006 ↑ 2002
Preparation, programming, unloading and replaying of missions (in Visual Basic)
for the AlphaJet, Transall, Mirage 2000, Mirage F1, Mirage IV and Jaguar aircrafts
- sequential programming of EEPROM modules for Mirage onboard computers
- import of NavData global database (international standard ARINC 424)
- NavData exports adapted to the constraints of Transall onboard computers (FMS)
- route programming and unloading with several Garmin GPS devices

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Master's degree lvl 2
EICNAM, Bordeaux

2023 ↑ 2019
Computing, networks, systems and multimedia
- **thesis in progress: "Incremental Live Operating System"**

Master's degree lvl 1
CNAM, Bordeaux

2019 ↑ 2014
Computing architecture designer
- networks and systems

English tests
CNAM, Bordeaux

2016 · 91 / 100 · BULATS
2014 · 960 / 990 · TOEIC

Ansible training
Orsys, Paris

2019
- introduction

Management training
EFSOAA, Rochefort

2008
- instruction
- leadership

Advanced certification
ETRS (prev ESAT), Rennes

2008
- project management
- advanced DBMS / SQL
- UP / UML modeling
- Java SE / EE projects

Cartography course
DGA, Bagneux

2008
Geodefense products
- ASRP, CADRG, USRP
- DTED, GeoTIFF, VMAP

Java training
CFI, Malakoff

2005
- introduction
- advanced training

Visual Basic training
CIGAA, Brétigny

2004
- advanced training

Basic certification
ESAT, Rennes

2002 ↑ 2001
- project workflow
- basic DBMS / SQL
- Merise methodology
- Delphi web project