MANUEL SIMÓN NÓVOA

Senior consultant
BSc in Computer Science Engineering
MSc in ICT Security

PRESENTATION

BSc in Computer Science Engineering and MSc in ICT Security, with a specialized profile in computer networks and systems.
International work experience as IT consultant, involved in large projects and including flexibility to work with colleagues placed at different countries. Used to work with agile frameworks and methodologies, mixing them with **strong adaptation and management abilities.**

CONTACT

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Santiago de Compostela, Galicia (Spain)

LANGUAGES AND SKILLS

Java - C - **Bash** - **Powershell** - SQL - UML - **Python** - HTML & CSS - Git - Latex - Sage

Role-based access control - Risk analysis - Encryption - IT Legislation - Hardening - Digital watermarking and steganography

Administration of relational and non-relational **databases** (PostgreSQL, Oracle, Microsoft SQL Server, MongoDB) - **Scripting** - Database design - Scrum - **Containerization** - **Orchestration** - **Application servers** (Tomcat, JBoss)

OTHER INFO OF INTEREST

Driving license and private car

Coordination of technological groups during my studies (GDG Santiago, Santiago.NET)

Participant in "Explorer: Jóvenes con ideas" program, related to entrepreneurship (6 months)

PROFESSIONAL EXPERIENCE

Senior consultant
EDNON, October 2020 - Currently   Santiago de Compostela (Galicia)
· Main client: CIXTEC, with an elevated number of servers and active users in multiple environments.
· **Administration of Linux** (RHEL, CentOS, Ubuntu) and, mostly, **Windows** (2000-2019) systems.
· Development through **scripting in Powershell and Bash**, as well as **SQL** queries.
· **Real-time monitoring** of the infrastructure through **Zabbix**.
· **Deployment** of new software versions: Jboss, LifeRay, .NET.
· **Administration of Microsoft SQL Server DB**, including backups.
· **Deployment and administration of GitLab's own server**, to carry out version control of the sotware through **Git**.

International consultant
AKKA Technologies, 2019-2020 (1 year & 5 months)   Geneva (Switzerland) | Paris (France)
· **International consultant specialized in IT.** Work experience in Switzerland and France.
· Within the group, I worked in the **telecommunications sector**, having my main project at **NOKIA**.
· **Working languages: English and French.**
· Project focused on the creation of a comprehensive control platform for the different network elements, making use of multiple network technologies, such as 3G, 4G, 5G or Wi-Fi.
· QA Testing: verification of the successful exchange of data on the network, by sniffing packages and reviewing logs; GUI testing; tests developed by using physical and virtualized devices.
· **Presentation of functional demos** of the software at the end of each Sprint (**Scrum** framework) to the different stakeholders. **Exhibitions held in French.**
· Drafting of user manuals.

Research assistant - Cybersecurity
Lero: The Irish Software Research Centre, 2018 (2 months)   Luimneach/Limerick (Ireland)
· Application of mutation techniques mixed with AI planning for the automatic creation and detection of vulnerabilities in a **cloud** environment.
· **Python** and PDDL **scripting**.

Research assistant - Sysadmin & cybersecurity
The Supercomputing Centre of Galicia, 2017-2018 (7 months)   Santiago de Compostela
· Configuration of a **container-based system** (**Docker**, Singularity & Udocker) on HPC structure with **Red Hat Enterprise Linux systems**.
· Completion of my thesis: "Analysis of security risks in the use of containers for High Performance Computing (HPC)".
· **Bash scripting** in order to achieve the future reproducibility of the model.
· Risks classification, vulnerabilities detection and exploitation.
· Determination of changes to be made: good practices and recommendations.

EDUCATION

MSc in ICT Security
Universitat Oberta de Catalunya (coordinator) - UAB - URV, 2019-2021   Distance learning
· Part-time studies, combining them with my work life.
· Speciality field: **Security in networks and systems.**
· Average score: 9.26/10.
· Completion of my thesis: **'Security analysis of Kubernetes-based architectures'**:
  - Comprehensive project to **secure a Kubernetes-based cluster**, including the processes of: planning, theoretical study, specification of limitations and requirements, **creation and configuration of the cluster, vulnerability analysis, securitization** and future work. Use of **Docker** as container technology and **Istio as Service Mesh**.
  - Special emphasis on the importance and current migration to microservices.

BSc in Computer Science Engineering
Universidade de Santiago de Compostela, 2014-2018   Santiago de Compostela (Galicia)
· Tutor for incoming students

PUBLICATIONS

Evaluation and Benchmarking of Singularity MPI containers on EU Research e-Infrastructure

2019 IEEE/ACM International Workshop on Containers and New Orchestration Paradigms for Isolated Environments in HPC
Victor Sande Veiga, Manuel Simón, Abdulrahman Azab, Carlos Fernandez, Giuseppa Muscianisi, Giuseppe Fiameni & Simone Marocchi

AREAS OF INTEREST

· Cybersecurity
· Computer and mobile networks
· System administration (sysadmin)
· Network administration
· Database administration (DBA)
· Containerization and virtualization

LANGUAGES

Language	Level
Galician	Native
Spanish	Native
English	High*
Portuguese	High*
French	Intermediate*

*C1 English level certified by Grade 10 from Trinity College London.
*Portuguese level not officially certified, ~C1. French level not officially certified, but attending B2 level courses.