

Curriculum Vitae

Sergio Talens-Oliag



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Personal information

- **Name and Surnames:** Sergio Talens-Oliag
- **Place and Date of Birth:** Valencia, August, 12th, 1971
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Academic Background

- *Graduate In Computer Science* by the *Universidad Politécnica de Valencia* (<http://www.upv.es/>).
- A.B.D. on the program named *Distributed and Parallel Computation* of the *Departamento de Sistemas Informáticos y Computación* (<http://www.dsic.upv.es/>) of the *Universidad Politécnica de Valencia*.
- Obtained the Advanced Studies Diploma (D.E.A.) on the PhD program called *Interdisciplinary Doctorate in Communication* of the *Departamento de Teoría de los Lenguajes* (<http://www.uv.es/teolen>) of the *Universitat de València* (<http://www.uv.es/>).

Professional Experience

- *Senior DevOps Engineer* for *Intelygenz* (VASS Group), March 2023 to present.

<https://intelygenz.com/>

Tasks:

- Collaboration in the implementation of development and production infrastructures on cloud platforms (mainly AWS) using tools such as `terraform` or `helmfile` manually or programmatically.
- Testing, evaluation, configuration and deployment of tools and services related to

kubernetes clusters (`cert-manager`, `eks`, `external-dns`, `grafana`, `prometheus`, `vault`, etc.).

- Testing, evaluation, configuration and deployment of tools and services linked to applications (`cassandra`, `kafka`, `postgres`, `redis`, etc.) for local environments (using containers) or in kubernetes clusters.
 - Configuration and maintenance of continuous integration systems (Gitlab CI, Github Actions) to manage the infrastructure lifecycle, applications, libraries and documentation repositories.
 - Development and modification of code in multiple programming languages for task automation or bug resolution (`bourne shell`, `python`, `nodejs`, `golang`, `java`, etc.).
 - Support development teams in the use of continuous integration systems and tuning of infrastructures for different application deployment environments.
- *Senior DevOps Engineer for Kyso Operations Europe Limited*, January 2022 to September 2023.

<https://kyso.io/>

Tasks:

- Help on building the self-hosted version of Kyso that is delivered to enterprise clients.
 - Kyso application packaging for distribution (docker images, AWS marketplace images, etc.).
 - Support enterprise clients during product release and update cycles.
 - Write guides to setup Kyso on enterprise deployments.
 - Build images following security best practices.
 - CI/CD and Development Systems and Tools management and maintenance.
- *Consultant for Curelator Inc. on the Backend Development Team*. August 2021 to January 2022.

<https://n1-headache.com/>

Tasks:

- Implement new features and maintain the backend codebase.
 - Participate in code reviews.
 - Participate in testing and releases to production.
 - Participate in the elaboration of new features and products.
- *IT Senior Operations Architect at Agile Content, S.A.*. January 2020 to July 2021.

<https://www.agilecontent.com/>

Tasks:

- Setup of the Continuous Integration and Deployment Infrastructures for the AgileTV platform using GitLab, Docker and Kubernetes.
- Development of tools to simplify the configuration and deployment of containerized

applications using various orchestration tools (initially `docker-compose` and `kubernetes`).

- Configuration and deployment of services required by the platform and general use services (`nginx`, `haproxy`, `postgresql`, `prometheus`, `elk`, `mysecureshell`, ...).
 - Original product platform supervision (*headend*, *origin*, DRM systems, *CDN* and service platform) and cooperation on the design and migration plan to a new platform.
 - System Administration Teams supervision and collaboration for the rest of the company projects (mainly application deployments on AWS for production and on hosted servers for development and pre-production environments).
- Director of the *Information Systems Department* (ISD) at the *Instituto Tecnológico de Informática* of the *Universidad Politécnica de Valencia*. January 2015 to January 2020.

<https://www.iti.es/>

Tasks:

- Supervision and coordination of the Systems Administration Team, responsible for the setup and maintenance of the Information Systems of the Institute:
 - IaaS Platforms (OpenStack and Proxmox) and Container Orchestrators (Kubernetes).
 - Common use applications and services management (DNS, DHCP, LDAP, SMTP, IMAP, SAMBA / Active Directory, etc.).
 - Management of third party applications for common tasks (ERP, CRM, eLearning, ticketing, file sharing) and development support (GitLab, Nexus, Testlink, SonarQube, Trac, Subversion, ...).
 - In-house developed applications management (Web Identity Manager, Human Resources Applications, Internal Procedures Management, Issue Management Interface, Intranet static content and news management, Project Execution Manager, ...).
 - Security related tasks (firewalls, backups, VPNs, etc.).
- Supervision and coordination of the *Applications Development and Integration Team*, working as project manager, analyst and/or developer in some of them:
 - Project Execution Management Application (Python/PostgreSQL Backend, VueJS frontend): in charge of the project in general and of the initial design and development of the backend and the integration with other services.
 - GitLab, Gitea and GitHub Hook processing system implemented in Golang (<https://salsa.debian.org/sto/json2file-go>).
 - Multi application LDAP user information synchronization tool (developed using python and ansible, integrated with the hooks system of the web frontend used to manage the LDAP data).
 - Web Identity Service (developed in Python, integrated with LDAP and a Database, provides tools to validate users using HTTP Basic Auth and JWT Tokens).
 - Static Intranet (design and setup of the Continuous deployment system using Jekyll and GitLab).
 - Intranet News Editor (Flask application design, users edit HTML using forms and the

system uses git to push and publish using Jekyll and GitLab).

- Simplified User Interface to the Issue Tracking system (Flask application without database, all the work is done using the CMDB REST API).
- Part-time lecturer at the *Departamento de Informática* of the *Universitat de València*. September 2018 to September 2019.

<https://www.uv.es/dptinf>

Subjects:

- Theory and practice of the *Security* course of the *Master en Tecnologías Web, Computación en la Nube y Aplicaciones Móviles*.
- Lab practices of the *Computer Security* course on the *Telematic Engineering* degree.
- Part-time lecturer at the *Departamento de Informática* of the *Universitat de València*. September 2016 to August 2017.

<https://www.uv.es/dptinf>

Subjects:

- Lab practices of *Computer Science II*.
- Lab practices of *Databases and Information Systems*.
- Lab practices of *Computer Fundamentals*.
- Lab practices of *Computer Networks Fundamentals*.
- Lab practices of *Multimedia Networks*.
- Director of the *Free Software, Systems And Security Area (FS³A)* at the *Instituto Tecnológico de Informática* of the *Universidad Politécnica de Valencia*. May 2010 to December 2014.

<https://www.iti.es/>

- Information Systems Manager at the *Instituto Tecnológico de Informática* of the *Universidad Politécnica de Valencia*. March 2006 to April 2010.

<https://www.iti.upv.es/>

- Part-time lecturer at the *Departamento de Informática* of the *Universitat de València*. January 2004 to September 2007.

<https://www.uv.es/dptinf>

Subjects:

- *Operating Systems* Lab practices (second year of Computer Science and Telematics Engineering).
- *Advanced Operating Systems* Lab practices (fourth year of Computer Science Engineering).
- Computer Science Analyst for *T-Systems S.A.*, working full time for the *LliureX* Project

(<http://lliurex.net/>) in the *Conselleria de Cultura, Educació i Esport* (<http://www.cult.gva.es/>) of the *Generalitat Valenciana* (<http://www.gva.es/>). January 2004 to March 2006.

<http://www.t-systems.es/>

Tasks:

- Design, development and maintenance of distribution elements (packages, configuration artifacts, installation systems).
- Integration with the upstream project (Debian).
- Computer Security Consultant for *Tissat S.A.*, inside the *InfoCentre* project (<http://www.infocentre.gva.es/>) of the *Generalitat Valenciana*. December 2002 - December 2003.

<http://www.tissat.es/>

Tasks:

- Security Audits.
- Monitoring.
- Configuration and maintenance of security policies.
- Training.
- Part-time lecturer at the *Departamento de Sistemas Informáticos y Computación* of the *Universidad Politécnica de Valencia*. September 2003 - November 2003.

<http://www.dsic.upv.es/>

- Senior Programmer for *Internet Business Constellation* (iBC). July 2002 - November 2002, working as analyst and programmer.

<http://www.inetbc.net/>

- Senior Programmer for *Intelligent Software Components* (iSOCO). June 2000 - July 2002, working as Programmer and System and Network Administrator.

<http://www.isoco.com/>

- Researcher at the *Instituto Tecnológico de Informática* of the *Universidad Politécnica de Valencia*. June 1999 - May 2000.

<http://www.iti.es/>

- Collaboration with the *Instituto Tecnológico de Informática* in an IMPIVA Project (<http://www.impiva.es/>). June 1998 - June 1999.
- Installation and Administration of TCP/IP Networks (Internet/Intranet) and Unix Servers (Linux) for:
 - *Instituto Valenciano de Investigaciones Agrarias* (IVIA), 1995-99.

<http://www.ivia.es/>

- *Florida Centre de Formació*, 1996-98.

<http://www.florida-uni.es/>

- *Federación Valenciana de Municipios y Provincias (FVMP)*, 1995.

<http://www.fvmp.es/>

- Other courses taught:

- Three **Introduction to the use of Docker and Kubernetes** courses for UPV's administration and services staff. Unidad de Formación del PAS (UFASU), *Universidad Politécnica de Valencia*. 2019 - 2020.
- A course about **DevOps with GitLab, Docker and Kubernetes** for technical staff of FERMAX. *Instituto Tecnológico de Informática*. 2019.
- Two **Advanced Linux for Administrators** courses for technical staff of Consum Cooperativa. *Instituto Tecnológico de Informática*. 2016.
- Two **Basic Linux for Administrators** courses for technical staff of Consum Cooperativa. *Instituto Tecnológico de Informática*. 2016.
- One course about **Ubuntu Systems Administration in Active Directory Domains**. *Instituto Tecnológico de Informática*, 2014.
- Four courses **Preparation of the LPIC-1 Certification Exams** (*Linux Professional Institute Certification Level 1 Certification*). *Instituto Tecnológico de Informática*, 2010, 2011, 2015 and 2016.
- One course about **Technical protection of Software**. *Instituto Tecnológico de Informática*, 2008.
- One course about **Java Security**. *Instituto Tecnológico de Informática*, 1999.
- One course about **Design and Layout of Publications**. *La Nau dels Estudiants (Universitat de València)*, 1997.
- Four courses about **C++ Programming**. *Escuela Universitaria de Informática (Universidad Politécnica de Valencia)*, 1994-1996.
- One course about **Introduction to C++ programming for the Macintosh**. *Master de Artes Gráficas* of the *Universidad Politécnica de Valencia*, 1994.

Publications, talks and participation in Congresses and Conferences

- *Personal Technical Blog*.

<https://blogops.mixinet.net/>

- *Short History of Linux and The Free Software Movement*. Lecture given the courses 2002/2003, 2003/2004 and 2010/2011 in the *Universidad Politécnica de Valencia* as invited lecturer inside the course about *Computer Science History* and also on April 2006 inside the *V Jornadas de Software*

Libre at the *Casa de Cultura de Burjassot*.

<http://www.uv.es/sto/charlas/BHLSL/>

- Talk about *Free virtualization tools for GNU/Linux Systems* given at the **Congreso Internet del Mediterráneo** in Alicante, September 2010.

http://www.uv.es/sto/charlas/2010_CIM/

- Lecture about *Free Software Selection and Configuration for Server Networks* given at the **VIII Jornades de Programari Lliure** in Barcelona, July 2009.

http://www.uv.es/sto/charlas/2009_07_VIII_JornadesPL/

- *Free virtualization tools for GNU/Linux Systems*. Article included on the 15th number of **Actualidad TIC** (ISSN: 1696-5876), July 2009.

https://issuu.com/globalcomu/docs/revista_actualidad_tic

- Lecture about *Free virtualization tools for GNU/Linux Systems* given at the **VII Jornades de Programari Lliure** in Barcelona, July 2008.

http://www.uv.es/sto/charlas/2008_07_VII_JornadesPL/

- Lecture about *Computer Science Projects Management with Free Software* given at the **III Jornades de Software Libre de Albacete**, Albacete, April 2007.

<http://www.uv.es/sto/charlas/GPICSL/>

- *Agile Documentation Tools*. Article included on the 11th number of **Actualidad TIC** (ISSN: 1696-5876), November 2006.

https://issuu.com/_iti_/docs/actualidad_n11

- Lecture on *Agile Documentation Tools* given at the **V Jornades de Programari Lliure UPC**, July 2006.
- *Design and Implementation of the Custom Debian Distributions Toolkit (CDDT)*. Talk presented on the **II Open Source World Conference** celebrated in Málaga, February 2006.

<http://people.debian.org/~sto/Malaga2006/>

- Lecture on *Free software development from the IT Industry* given at the **IV Jornades de Programari Lliure UPC**, July 2005.

<http://www.uv.es/sto/charlas/Vilanova2005/>

- Lecture on *Building Custom Debian Distributions with the CDDtk* given at the **IV Jornades de Programari Lliure UPC**, July 2005.

<http://people.debian.org/~sto/Vilanova2005/>

- Lecture on the *LliureX Project* on the *Custom Debian Distributions Seminar* celebrated the 24th

of September, 2004, inside the *Firenze World Vision 2004*.

<http://www.miu-ft.org/what/events/20040924.fwv.cdd/>

- Lecture on *Custom Debian Distributions* given at the **III Jornades de Programari Lliure** of the *Universitat Politècnica de Catalunya* (July 2004)

<http://www.uv.es/sto/charlas/Manresa2004/>

- *Security on the application development*. Lecture given at the *Escuela Politécnica Superior* of the *Universidad de Castilla la Mancha, Albacete*, course 2004/2005.

<http://www.uv.es/sto/charlas/SDA/>

- *Specialized GNU/Linux Distributions for the Public Administration*. Paper presented and included on the *proceedings* of the **International Conference on Open Source** celebrated in Málaga, February 2004.

<http://www.opensourceworldconference.com/2004/>

- Author of three articles published on the *Boletín Electrónico de Infocentre* during 2003.

<http://www.uv.es/sto/articulos/>

- Author of the book *INTERNET. Redes de Computadores y Sistemas de Información*, Edited by **ITP-Paraninfo**, 1997.

<http://www.ivia.es/~sto/alice/>

Participation in Projects

- **ViSCa**. Leader of ITI contributions to the ViSCa (*Virtualization of Smart Cards*) project of the ITEA program. 2013-2016.

<https://itea3.org/project/visca.html>

<http://www.eureka-visca.org/>

- **CSIRTCV**. Puesta en marcha del *Centro de Respuesta ante Incidencias de Seguridad Informática de la Comunidad Valenciana* dependiente de la *Consellería de Justicia y Administraciones Públicas* de la *Generalitat Valenciana*, 2006-2009.
- **Design of the gvSIG projects colaborative infrastructure**. Design and deployment of the colaborative work enviroment for the **gvSIG** of the *Consellería de Infraestructura y Transporte*, *Generalitat Valenciana*, 2006-2009.
- **LliureX**. Development on the initial versions of a GNU/Linux distribution for the *Conselleria de Cultura, Educación y Deporte*, *Generalitat Valenciana*, 2004-2006.
- **MEDIM** (*Minería de Datos Estructurados basada en Distancias y Métricas, Structured Data Mining based on Metrics and Distances*). R&D project funded by the *Generalitat Valenciana*, 2004-

2005.

- **Autoría y Contenidos en la Red** (*Authorship and Contents in the Net*). R&D project funded by the *Generalitat Valenciana*, 2004-2005.

Other activities

- Developer of the **Debian** Project.

<http://www.debian.org/>

- Author of a **personal blog** about technical issues (in English).

<https://blogops.mixinet.net/>

- Design and layout of the series *Documentos de Trabajo (Eutopías)*, *Centro de Semiótica y Teoría del espectáculo*, *Universitat de València & Asociación Vasca de Semiótica*, 1988-1998.

<http://www.uv.es/eutopias/>

- Design of the HTML pages of the **Ediciones Cátedra** web server, 1997.

<http://www.catedra.com/>

Languages

- **English**: high level, written and spoken (*C2 - Certificate of Proficiency in English*, Cambridge University Press & Assessment, June 2023).
- **Catalan/Valencian**: high level, written and spoken.

Computer Science Related Knowledge

- Operating Systems: UNIX, Windows and MacOS, at user, administrator and programmer level.
- Programming Languages: Python, UNIX Shell, C, Rust, Golang, C++, Java, JavaScript / ECMAScript (nodejs).
- Experience in integration, installation, configuration and maintenance of all kind of services, basically running under UNIX like systems and using free software:
 - Backup Systems (borgbackup, restic, rdiff-backup, backupninja, etc.),
 - Configuration Management Systems (saltstack, ansible, etc.),
 - Content Management Systems (joomla, drupal, plone, etc.),
 - Databases (postgresql, mysql, etc.),
 - Directory Services (openldap, pam_ldap, nss_ldap, etc.),
 - Domain Name Services (bind, powerdns, dnsmasq, etc.),
 - E-Mail Services (postfix, dovecot, mailman, etc.),

- IaaS Platforms (openstack, proxmox, etc.) and Container Orquestation Tools (kubernetes),
- IaC Tools (terraform, helm, helmfile, etc.),
- Monitoring Tools (monit, icinga, zabbix, etc.),
- Network Filesystems (CEPH, nfs, samba, gfs, etc.),
- Project Management Tools (gitlab, forgejo, trac, redmine, gforge, etc.),
- Static Website Generators (jekyll, ikiwiki, hugo, etc.),
- Version Control Tools (git, subversion, mercurial, etc.),
- Virtualization Tools (kvm, lxc, docker, virtualbox, openvz, etc.),
- Web Servers (nginx, apache, lighttpd, etc.).
- Unix/Linux Security Tools:
 - Firewalls (ipchains, iptables, nftables, pf),
 - Intrusion Detection Systems (snort, integrity, logcheck),
 - Network Monitoring Tools (ntop, ipaudit),
 - Security Scanners (nessus, openvas).
- High Availability and Fault Tolerance Systems:
 - Linux-HA (hearbeat, mon, drbd, ...),
 - Load Balancing (lvs),
 - RedHat cluster suite (cman, rgmanager, clvm, ...).