# Cristóbal Carnero Liñán

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"Creativity is intelligence having fun." – Albert Einstein

## Summary

More than 10 years of professional experience in the software industry and university research groups. Expertise in develop, deploy and manage server-side software and web services.

#### Education

- 2009-2011 Master in Software Engineer and Artificial Intelligence,  $\it Universidad$  de  $\it M\'alaga$ .
- 2002 2007 Computer and Software Engineering, Universidad de Málaga. 5-year university degree. Bachelor Thesis approved with Special Distinction.

## Experience

#### Since Nov Cathedral Software, Senior Data Engineer.

- 2018 Cloud architecture solutions design & implementation.
  - Backend services development & deployment.
  - Technologies: AWS, Azure, Terraform, Kubernetes, Helm, Django REST Framework, Pandas, Jupyter,...

#### Feb 2018 - Virtually Live, Senior Server Engineer.

- Nov 2018 Cloud architecture and CI/CD design and implementation.
  - Kubernetes deployment and management in AWS.
  - Real-time data pipeline: ingestion, processing, publishing,...
  - Computer Vision using Deep Learning.
  - Technologies: Python, Kubernetes, AWS, Jenkins, Ansible, Terraform, Kafka, Heron, Keras, Pandas, Jupyter,...

#### 2017-2018 Cathedral Software, Senior Software Engineer.

- Big Data & Business Intelligence.
- Technologies: Python, Django, Django REST framework, AWS, Docker, Airflow, Redshift, PostgreSQL, Angular 2, Selenium,...

#### 2015 - 2017 VATIA Energía, Software Engineering Manager.

- Web platform for automatic Virtual Energetic Audit, Energetic Benchmarking, monitoring,...
- Fullstack development, DevOps & data analysis.
- Technologies: Node.js, Python, Celery, Django, Pandas, Matplotlib, MongoDB, Ansible, Fabric.

#### 2014 – 2015 **Axafone**, Consultant.

- Web technology consultancy.
- Customized web crawlers (Scrapy).
- Speaker.

#### 2011 – 2013 Melomics Media, Backend Developer, DevOps.

- Server side development and deployment of a massive online music repository, with search, streaming, purchases and public API.
- Administration of cluster of Debian servers.
- Development and deployment of automatic video edition software with additional post-processing capabilities as chroma key, effects, titles, subtitles, publishing,...
- Technologies: Python, web.py, MongoDB, ElasticSearch, Memcached. APIs: Paypal, Google Wallet, Facebook, Google+.

## 2009 – 2011 Universidad de Málaga, Researcher.

- Computer vision research in the department of "Computational Intelligence and Image Analysis", managed by José Muñoz Perez and Enrique Dominguez Merino.
- Technologies: Python, C++, OpenCV, cvBlob, Matlab, Octave.

#### 2007 – 2009 Tedial S.L., Backend Developer, System Administrator.

- Server-side media storage technologies.
- Authentication, authorization, and access control.
- Management of surveillance cameras.
- Deployment of software and administration of several SuSE Enterprise Server installations.
- Technologies: C++, Python, SuSE Enterprise Server, Oracle, LDAP, SOAP.

#### 2005 – 2006 Novasoft, Software and Web Developer.

- Educational video games.
- Technologies: Flash, ActionScript, HTML, Javascript.

## Master Thesis

Title "Shape recognition through new convexity descriptors"

Supervisors José Muñoz Perez, Enrique Dominguez Merino

Description For this project several new convexity descriptors were devised. Then they were tested in the recognition of the *American Sign Language* used by deaf people.

#### Bachelor Thesis

Title "A Video Surveillance System for Fall Detection"

Supervisors José Muñoz Perez

Description Development of a video surveillance software to automatically detect the fall of persons.

## Personal projects

## Since 2016 Mukabe, https://mukabe.com.

- *Mukabe* is the new way of navigate through information, the new social and online organization, and the new way to get visibility for you, your projects or your company.
- Technologies: Python, Django, Celery, Redis, ElasticSearch, Ansible, Fabric, AWS, Social APIs (Instagram, Facebook, Google+,...).

#### Since 2015 RegaloInteligente, http://regalointeligente.com.

- Search engine of gifts with parameters like gender and age, and filter for prices.
- Web and Android applications (available in Google Play). Twitter bot with auto posting and automatic reply. Telegram bot.
- Technologies: Python, Pyramid, MongoDB, ElasticSearch, Amazon API, Twitter API, Telegram Bot API.

## 2013 – 2014 CursosDeSEO, http://cursosdeseo.net.

- Search engine of courses from different platforms and formats.
- Technologies: Python, Pyramid, MongoDB, ElasticSearch, Scrapy.

## Free Software Projects

Since 2014 WooDPD, http://woodpdplugin.com.

WordPress Plugin to integrate DPD purchases in WooCommerce.

Since 2013 **OrigamiPress**, http://origamipress.com.

Blog tool, publishing platform, and CMS developed in Python. Yet to be published.

Since 2009 cvBlob, http://cvblob.googlecode.com.

Blob library for OpenCV, widely used in computer vision and robotic research.

## Languages

Spanish Native

English Fluent

## Qualities

## Computer skills

Languages: Python, Bash, JavaScript, HTML5, CSS3, SQL.

Databases: PostgreSQL, MongoDB, ElasticSearch, Redis, Memcached, Redshift.

Web servers: Nginx, Apache.

Environments: Vim, Make, Android Studio, Eclipse. Git, Mercurial, Subversion.

Frameworks: Django, Django REST framework, Celery, Cornice, Scrapy, Airflow, Pyramid, Bootstrap, Mako,

WordPress, OpenCV, OpenGL.

Testing: TDD, unittest, Selenium.

Infrastructure: Kubernetes, AWS, Azure, DigitalOcean.

Deployment: Docker, Helm, Jenkins, Ansible, Terraform, Fabric, VirtualEnv, Supervisor, Upstart, Vagrant.

Data Pandas, Keras, Jupyter.

Science:

Technologies: RESTful Web Services, Ajax.

APIs: PayPal, Google Wallet, Amazon, Facebook, Twitter, Instagram, Braintree, Telegram.

Platforms: GNU/Linux (Ubuntu, Debian, SuSE Enterprise Server, CentOS), Android.

Others: LaTeX.

#### Personal skills

- Engineering Ability to find creative solutions.
  - Strong analytical, able to anticipate issues, resolve concerns and improve efficiency.
  - Good software engineering skills.
  - Care of coding standards.
  - Eager to learn and develop new skills.

- Others Ability to work without direct supervision.
  - Skilled in building excellent rapport with team members and clients.
  - Great verbal and written communication skills (wide experience in both Spanish and English).
  - Professional experience in public speaking.

#### Interests

GNU/Linux, web servers, web spiders, image processing, computer vision, computer graphics, artificial intelligence, compilers development, security.