Cristóbal Carnero Liñán

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Summary

AWS Solutions Architect certified with more than 10 years of professional experience designing, building and deploying server-side solutions in the cloud, for different industries like management consulting, energy and utilities, video games, and university research groups. Expertise in Backend Development, Data Engineering and DevOps.

Education

2009 – 2011	**Master in Software Engineer and Artificial Intelligence**, *Universidad de Málaga*.
2002 – 2007	**Computer and Software Engineering**, *Universidad de Málaga*. 5-year university degree. Bachelor Thesis approved with Special Distinction.

Certifications

- **AWS Certified Solutions Architect − Associate**, *Amazon Web Services*.

Experience

Since Nov 2018 — **Cathedral Software**, *Senior Data Engineer & DevOps*.
- Work for one of the biggest management consulting firm.
- Develop backend services for web applications using Django REST Framework for API, Celery for background tasks, and Django Channels for notitifications.
- Work with Data Science team in order to design and implement cloud architecture solutions in both AWS & Azure, using Terraform.
- Implement continuos integration with different stacks: CircleCI, Azure DevOps, Docker, Helm, Kubernetes.

Feb 2018 - Nov 2018 — **Virtually Live**, *Senior Server Engineer & DevOps*.
- Independently responsible for designing full real-time data pipeline architecture from the ingestion of telemetry from live events (*Formula E*), processing, and serve the output stream data to mobile games at scale.
- Implement the key parts of the architecture in Python using technologies like ZeroMQ, Kafka and Tornado.
- Work closely with Data Science team to provide a stream processing framework using Apache Heron for their needs.
- Deployment of a Kubernetes cluster in AWS using Ansible, including hosted applications using Helm, and continuos integration with Jenkins.
- Contributions to open source project Apache Heron in order to fix deployment to Kubernetes and complete its documentation.
- Work with R&D department designing and developing a prototype for a real time computer vision app using deep learning with Keras.

2017-2018 **Cathedral Software**, *Senior Software Engineer.*
- Work on the data pipeline of the business intelligence platform of one of the largest travel web companies.
- Develop ETL in Airflow to calculate KPIs and provide reporting capabilities for internal tools of the client company.
- Responsible to design and develop backend solution to provide real time chat and other features to mobile app using Tornado.

2015 - 2017 **VATIA Energía**, *Software Engineering Manager.*
- Responsible to design and develop a web platform for automatic *Virtual Energetic Audit* and *Energetic Benchmarking.*
- Develop key parts of the system: Node.js APIs, background tasks using Celery for monitoring, and data analysis/reporting with Pandas and Matplotlib.
- Responsible for recruiting technical staff: write job descriptions, qualify resumes, interview candidates and provide assessments.

2011 – 2013 **Melomics Media**, *Backend Developer & System Administrator.*
- Server side development and deployment of a massive online repository of computer generated music, with search, streaming, purchases and public API.
- Administration of a cluster of Debian servers.
- Development of automatic video edition software with additional post-processing capabilities as chroma key, filters, 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**, *Backend Developer & System Administrator.*
- Server-side media storage technologies.
- Development of an interpreter for a custom programming language designed for testing DB operations.
- Authentication, authorization, and access control with LDAP.
- Management software for surveillance cameras.
- Deployment of software and administration of several SuSE Enterprise Server client installations.
- Technologies: C++, Python, Oracle, SOAP.

2005 – 2006 **Novasoft**, *Software & Web Developer.*
- Educational video games in Flash.
- Started in a one month scholarship, but then the company hired for a longer project.
- Technologies: Flash, ActionScript, HTML, Javascript.

Personal projects

Since 2020 **EnRemo.to**, *https://enremo.to.*
- Directory of tools for remote working built in less than 24h during COVID-19 as a No-Code project.
- Job offers for remote positions in companies based in Spain.
- Blog about remote working.

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+), HTML5, CSS3, Bootstrap, JavaScript, JQuery.

Since 2015	**RegaloInteligente**, *http://regalointeligente.com.*
	– Search engine of gifts with parameters like gender and age, and filter for prices.
	– Web and Android applications. Twitter bot with auto posting and automatic reply. Telegram bot.
	– Technologies: Python, Pyramid, MongoDB, ElasticSearch, Amazon Product Advertising API, Twitter API, Telegram Bot API, HTML5, CSS3, Bootstrap, JavaScript, JQuery.

Free Software Projects

2014 – 2015	**WooDPD**, *https://es.wordpress.org/plugins/woodpd/.*
	WordPress Plugin to integrate DPD purchases in WooCommerce.
2009 – 2012	**cvBlob**, *https://github.com/cristobalcl/cvblob.*
	Blob library for OpenCV, widely used in computer vision and robotic research.

Languages

Spanish	Native
English	Fluent

Qualities

Computer skills

Languages:	Python, Bash script, Elixir (*learning*).
Software Engineering:	TDD (Test-driven development), Clean Architecture.
Databases:	PostgreSQL, MongoDB, ElasticSearch, Redis.
Frameworks:	Django, Django REST framework, Celery, Airflow.
Infrastructure:	Kubernetes, AWS, Azure, DigitalOcean.
Deployment:	Docker, Helm, Jenkins, Terraform, Ansible, Supervisor, Nginx.
Data Science:	Pandas, Keras, Jupyter.
Environments:	Vim/NeoVim, Make, Git.

Personal skills

Engineering	– Ability to find creative solutions.
	– Strong analytical, able to anticipate issues, resolve concerns and improve efficiency.
	– Care of coding standards and best practices.
	– Eager to learn and develop new skills.
Others	– Ability to work without direct supervision.
	– Great written communication skills (wide experience in both Spanish and English).

Interests

GNU/Linux, free software, DDD (Domain-Driven Design), image processing, computer vision, computer graphics, artificial intelligence.