Víctor Muñoz

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Experience

2014–2017 Lead Software Engineer/CTO, Shared Property Data, London, UK.
Responsibilities and specific projects:

- First technical member of the team; architected, prototyped and wrote the product, and led its evolution.
- Design and development of a REST API, acting as the backend for the whole platform.
  Technologies: Python, Django REST Framework, PostgreSQL, Celery.
- Unit, integration, regression, penetration, performance and acceptance test suites; automated QA through a CI system.
  Technologies: Pytest, Jasmine, Karma, Jenkins.
- Development of a consumer–facing frontend, based on a modern, single–page application. It serves as a reference implementation for an API consumer.
  Technologies: JavaScript, AngularJS 1.x.
- Design and evolution of a semantic, fine–grained and geospatial search engine.
  Technologies: Apache Solr, ElasticSearch.
- Systems administration, including staging and production servers, as well as management of the deployment process.
  Technologies: FreeBSD, Nginx, Salt.

2014 Software Engineer, Wazoku, London, UK.
Responsibilities and specific projects:

- Senior backend engineer, in charge of maintaining the company's product (Idea Spotlight), and planning, implementing, testing and deploying new features.
  Technologies: Python, Django, Bottle, JavaScript, CouchDB, PostgreSQL, ElasticSearch, Celery.
- Implementation of a brand–new search engine, based on Apache Solr, aimed at improving the reliability and performance of the previous system, as well as extending the search capabilities of the application, providing room for future improvements and extensions.
  Technologies: Apache Solr, Haystack.
- Creation of a new configuration management and deployment system, aimed at increasing the system's reliability, scalability and fault tolerance, while reducing downtime during the deployment of new versions of our application.
  Technologies: Fabric, Salt, Grunt, HAProxy.
- Acting systems administrator, responsible for monitoring the company's cloud infrastructure and solving any incidence in the shortest time possible, thus maintaining our SLA.
  Technologies: Linux, Nginx, Monit, Python.

- Maintenance of the test suite, running it through a continuous integration system and verifying its build status before every release, guaranteeing that every release is clean.
  Technologies: Nose, Jenkins.

2011–2013 Lead developer, ITEISA Desarrollo y Sistemas, S.L., Santander, Spain.
General tasks:

- Management of the software development process and code life cycle, from requirements analysis and specification to deployment and maintenance.
- Level 3 technical support, performing tasks regarding performance and security code audits, software installation, upgrading and configuration and end–user training.
  Technologies: OTRS.
- Implementation of the ISO/IEC 15504 standard; preparation of the documentation regarding the software development process and the testing methodologies.
- Streamlining of the company software development process, migrating to a version control system, an issue tracking platform and an automated configuration and deployment system.
  Technologies: Git, GitLab, Puppet.

Specific projects:

- Design and development of a search engine on top of the whole body of parliamentary acts of the Spanish Congress; performance and accuracy testing and tuning.
  Technologies: Apache Solr, Kyoto Cabinet, OpenNLP, OpenCalais, Perl.
- Design an development of a window configuration system, to be integrated into a window manufacturer website.
  Technologies: JavaScript, Processing.js, jQuery, CakePHP, MySQL.
- Design, development and deployment of a real–time distributed rendering system for a shoe–customisation web application; strong focus on integration, performance and system testing.
  Technologies: CakePHP, ImageMagick, MySQL, FastCGI, POV–Ray, Autodesk Maya, ZeroMQ.
- Design and development of a scraper to extract the gas price for all gas stations in Spain from the official database; development of web and mobile apps, using custom algorithms to improve search results based on user's history and localisation.
  Technologies: Python, Requests, SQLAlchemy, MySQL, CakePHP, HTML5, jQuery Mobile, PhoneGap.

2011 HW/SW engineer, TEDESYS Global, S.L., Santander, Spain.

- Design and implementation of a stereo vision system; adapting current computer vision algorithms for implementation in a FPGA system.
  Technologies: C/C++, VHDL, OpenCV, dc1394, Boost.

2008,2009 Summer grant, Magnetoplasmonics group, Madrid Microelectronics Institute (IMM – CSIC), Madrid, Spain.

- Debugging, improving and extending a scattering–matrix based numerical code, to be executed in a multi–processor system.
  Technologies: C/C++, BLAS, Lapack.

Education

2005–2010 MSc in Telecommunications Engineering, Universidad de Cantabria; speciality on microelectronics.

Microelectronics specialisation

Design and verification of digital integrated circuits.
Design of full–custom analog integrated circuits.
Embedded systems design, especially systems on chip (SoC). Development of task–specific hardware accelerators in VHDL.

Languages

Spanish, native speaker.
English, fluent. Technical assessment in juridic and technical translations.

IT Skills

Programming languages

C, C++, Python, JavaScript, PHP, UNIX shell scripting.
Working knowledge of Ada, MIPS assembler, Perl and Go.

Operating system administration

Windows, Linux (SuSE, Debian, Ubuntu, Fedora, RedHat/CentOS), *BSD (OpenBSD, FreeBSD).

Web development

Frontend: HTML5 & CSS3, JavaScript, AngularJS 1.x, jQuery & jQuery Mobile, PhoneGap, Processing.js, Raphaël.
Backend: MVC frameworks based on PHP (CakePHP) and Python (Django, Flask, Bottle).

Database management systems

Relational databases: MySQL, PostgreSQL.
NoSQL databases: MongoDB, Redis, Kyoto Cabinet, CouchDB.
Search engines: Apache Solr, Elastic Search.

Version control systems

Centralised: Subversion.
Distributed: Git.