



## David Lozano Jarque

Computer Science Engineer. Passionate Systems Administrator, Full-stack software developer and Cryptography and secure systems fan



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Spanish, Catalan, English



## BACKGROUND



### ABOUT

Technology and specially computer science has always been a diversion since I was a teenager at highschool. Since I discovered computer science, I decided to turn my hobby into my profession, and started learning computer science on my own. After that, I decided to study a computer science engineering degree at UAB.cat and have been launching several projects as a freelance since then. Not just to provide IT services to businesses but also developing innovative projects on my own with some colleagues to try to help evolve our world into the future

**Software Developer (as freelance in an internship), SEAT S.A.**

Mar, 2017 - Jun, 2017 ⓘ 3 months

Integration and adaptation of the IBC Biomechanics software with SEAT IT Systems for its internal biomechanical laboratory in the CARS center within the Martorell headquarters

- Python 3.6 (using Anaconda)
- GUI(s) using PyQt4/5
- Database management using ORM frameworks
- MariaDB RDBMS management
- SAP integration using APIs

**• Systems Administrator and IT consultant (as outsourced freelance) Meditrauma S.L.**

Jan, 2015 - Present

Outsourced IT Systems and Infrastructure accountable of the three company headquarters, performing typical systems administration tasks and IT consultancy

- LAN and WLAN TCP/IP networks installation and management (including cybersecurity tasks such as traffic filtering)
- Servers installation and maintenance using Ubuntu and Microsoft Windows Server 2003/2012
- Database setup and maintenance using Borland BDE, Microsoft Access and Microsoft SQL Server 7/2008
- Network file sharing installation and maintenance (with permission management) using Samba protocol
- Network printer spool services installation and maintenance using Canon, HP, Epson printers
- Workstation installation and maintenance using Microsoft Windows 7/8/10 (also migrated old ones from XP) and setting up enterprise software including ofimatics and internal ERP customized software(s)
- Installation and maintenance of DICOM networks and services
- Installation and maintenance of point-of-sale devices
- Installation and maintenance of medical equipment hardware and services such as X-Ray machines and ECGs
- Installation and maintenance of laboral risk prevention devices like audiometers

**• Software Developer and IT consultant (as freelance) IBC Biomechanics**

Sep, 2014 - Present

Design and development of a customized clinical reports generator software application based on Microsoft Word user-designed templates and using data exported from a collection of third-party applications that capture and analyze data from a patient using optical-tracking camera devices, EMG devices, foot insoles, dynamometers and inertial sensors

- Python 2.7 / 3.6 (using Anaconda framework and python-docx library)
- JavaSE 8 (using PyBluez to handle Bluetooth connections)
- GUI(s) using PyQt4/5

### Cybersecurity and cryptography

Symmetric cryptography (AES, DSA)

Public-key cryptography (RSA, ECDSA, ElGamal)

Shared-secret-schemes

Public Key Infrastructure (PKI)

Blockchain technology

Bitcoin cryptocurrency

### Networks and System Administration

TCP/IP protocols family

IEEE 802.3/11/15 (WiFi, Ethernet, Bluetooth)

STP

Static and dynamic routing

DTNs

Autonomous Systems

Domain Name System

Tunneling & VPNs & OpenVPN

IPsec

Traffic filtering with iptables-like tools

### Web Development

HTML5

CSS3

Javascript

AJAX

PHP

Responsive design

Bootstrap

Jekyll

### Programming (and markup) languages and frameworks

Android

Assembly (Intel x86\_64)

Bash / Shell

Batch/DOS

C

C++

CSS3

HTML5

JavaEE (J2EE)

JavaSE

JavaScript

JSON

LaTeX

Markdown

NodeJS

PHP

Python

Qt

SQL

XML

### Database management

Borland BDE

MariaDB

Microsoft Access

MySQL

Oracle Database 11g

SQLite

### Operating Systems

Debian

Java

Linux-based

Microsoft Windows XP/Vista/7/8/10

Microsoft Windows Server 2003/2008/2012

Ubuntu

### Software Development

CVS: Git, Git-flow (+GitHub and Bitbucket)

Agile methodologies

SPMP

Software Analyst

Software design

Use cases diagrams

Class diagrams

Requirements specification

Unit testing

## Computer Science Engineering, University Degree, Autonomous University of Barcelona (UAB.cat)

Sep, 2013 - Jun, 2017

*Cum laude, Global average GPA: 3.85 (8.86/10 in Europe)*

Algebra and Calculus Electricity and Electronics Computer Architecture Operating Systems  
Software Development Database Management (RDBMS and NoSQL) Agile Methodologies  
Computer Networks (Advanced) Distributed Systems Systems Administration  
Information and Security (Advanced) PKI Big Data Web Services DevOps  
Blockchain technology (Advanced) Bitcoin development (Advanced)

## Science and Technology, High school, Institut de Mollet del Vallès (iesmollet.net)

Sep, 2011 - Jun, 2013

*Global average GPA: 3.96 (9.76/10 in Europe)*

Catalan Spanish English Industrial technology Maths Physics Technical Design (and CAID)  
Entrepreneurship Internship (as computer technician)

## AWARDS

### 2nd place at University degree's gamification program dEIC.UAB.cat

Awarded on: Jun 25, 2016

TOP Enginyeria is an engineering gamification program implemented in several engineering degrees that aims students to go further than classes with extra projects, competitions, challenges and games apart from traditional classes, awarding the best students with symbolic rewards and extra activities to motivate them in their studies and improve their rivalry to get the best performance possible

<https://bit.ly/deic-gf-davidlj95>