

# Josep Batallé

Researcher and Fullstack developer

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## **About**

MSc. Josep Batallé is a research engineer who obtained his Technical Engineer in Telecommunications at Rovira i Virgili University (2011) and his Master in Telematics engineering at the Polytechnic University of Catalonia (2013). He has been involved at i2CAT Foundantion in several European projects (FP7 and H2020) such as T-NOVA, CHARISMA, SESAME, SODALES, GEYSERS and others, involving the most relevant topics of the last five years: Network Function Virtualization (NFV), Software Defined Networks (SDN), Network as a Service (NaaS), 5G...



## Work Experience

#### Research and projects engineer, i2CAT Foundation

Nov 2013 - Present ② 3 years 3 months

- o Designer and main developer of the NFV orchestrator for the T-NOVA project: TeNOR.
- o Designer and developer of an OpenAccess platform for CONTENT, SODALES and CHARISMA.
- o Developer of multiple User interfaces (Dashboard) for several projects.
- o Coworking with CISCO and Barcelona City Council in a proof of concept about FOG Computing.
- o Technologies used: Ruby, Java, Javascript, MongoDB, ElasticSearch, Docker, Kubernetes, Ansible, Openflow.

#### Intership, i2CAT Foundation

Dec 2012 - Oct 2013 ② 10 months

i2CAT Foundation is a non-profit research and innovation centre which promotes mission-oriented R+D+i activities on advanced Internet architectures, applications and services. The centre stands up for a new open innovation framework, fostering the collaboration between companies, public administration, the academic environment and end-users.

- o Designer and developer of a Management interface for GEYSERS project. Implementation of the backend in a Network as a Service platform.
- o Proof of concept in NFV.
- o Technologies used: Java, Javascript, HTML, MySQL, Openflow.

#### Intership, Artic-Group

Jun 2012 - Nov 2012 ② 5 months

Artic Group was a technology consulting specialized in web presence and positioning.

- o Development of several webs for different clients. Most importan client: solomoto.es
- o Technologies used: PHP, Bash, HTML, MySQL.



### Education

#### MSc Telematics Engineering, Master, Universitat Politècnica de Catalunya (Barcelona, Spain)

Jan 2011 - Jun 2013

Project/Thesis: Experimentation on Virtualized Routing Function Migration Using OpenFlow Design of a virtualized routing protocol over an OpenFlow network. Demonstrate the applicability of the NFV-powered implementation proposed into actual production environments.

#### BSc Telematics Engineering, Bachelor, Universitat Rovira i Virgili (Tarragona, Spain)

Jun 2008 - Jan 2011

Project/Thesis: Intelligent analysis of sounds in real time Detecting musical notes of different instruments using matematic analysis.



Backend: Ruby (Sinatra, Rails), Java (OSGI, Karaf, Spring, Hibernate, Maven), Python (Django), NodeJS, RabbitMq.

Frontend: HTML && CSS, Javascript(AngularJS, D3js, Visjs), PHP (Drupal, Wordpress).

Databases: SQL: MySQL, Postgre, NoSQL: MongoDB, Apache Cassandra, ElasticSearch.

**DevOps:** Ansible, Vagrant, Docker, OpenStack, Kubernetes. **Networking:** SDN (Openflow, ODL, vSwitch), NFV, IPv6.

Source control and CI/CD: Jenkins, Travis, Git, SVN.



# **Projects**

TeNOR, http://github.com/T-NOVA/TeNOR

Published on: 2014-08-24

NFV Orchestrator platform developed by the T-NOVA project, responsible for managing the entire NFV lifecycle service. TeNOR covers the orchestration and lifecycle management of software resources that support the infrastructure virtualisation, and the lifecycle management of Virtual Network Functions (VNF). TeNOR is totally integrated with Openstack and Opendaylight (ODL) and follows the NFV ETSI standards.

Ruby

MongoDB

Openstack

NFV S

ElasticSearch

Cassandra

AngularJS

Google music for Amarok, https://bitbucket.org/jbatalle/google-music-for-amarok

Published on: 2013-01-27

Google music for Amarok was a plugin for Amarok(a cross-platform free and open-source music player). That plugin connect the Google Music Account with Amarok in order to reproduce or download the songs saved in Google Music.

Javascrip

Kde

Amarok



#### **Awards**

Best research student project at the ICT 2013 in Vilnius (Lithuania),

Awarded on: Nov 2013

The project presented different uses cases for virtualize the routing function over an Openflow network.



## **Publications**

TeNOR: Steps towards an orchestration platform for multi-PoP NFV deployment, IEEE NetSoft Conference and Workshops (NetSoft)

Published on: Jun 06, 2016

Virtual network function scheduling: Concept and challenges, International Conference on Smart Communications in Network Technologies (SaCoNeT)

Published on: Jun 18, 2014

On the Implementation of NFV over an OpenFlow Infrastructure: Routing Function Virtualization, IEEE SDN for Future Networks and Services (SDN4FNS)

Published on: Nov 11, 2013

Management of Virtual Infrastructures through OpenNaaS, International Conference on Smart Communications in Network Technologies (SaCoNeT)

Published on: Jun 17, 2013



# Languages

English (Fluent), Spanish (Native speaker), Catalan (Native speaker).