

# Curriculum Vitae



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## Personal dates

**Name:** Marc Gironés Dezsényi

**Nationality:** Spanish

**Date and place of birth:** Vilobí d'Onyar (Girona), 4<sup>th</sup> of July in 1988

**Age:** 30 years

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## Academic Formation

**Universitat Pompeu Fabra**  
**Master's degree in Video Game Design**

**2013 - 2014**

**Universitat de Barcelona**  
**Bachelor's degree in Computer Engineering**

**2009 - 2013**

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## Professional experience

**Cirsa**  
**MyBingo ( C++ Game Programmer)**

**2016 - present**

Programming of slot games, technical support and maintenance of updates.  
Develop of the new multi bingo games of Cirsa a sold under the brand named **MyBingo**.

The technologies used in the project are: **OpenGL**, **C++** and **Internal Costum Script..**

**Digital Legends Entertainment**  
**Afterpulse ( Gameplay / C++ Programmer )**

**2015 - 2016**

Architecture, design and implementation of games for native mobile platforms, currently Apple iOS.

The technologies used in the project are: **Visual C++( Visual Studio )**  
Using project management tools such as: **Jira**, **Confluence** and **Plastic SCM**.

## **Barcelona Digital Technology Center**

**2013 - 2014**

**eKauri** (Junior Programmer / Architect )

EKauri is an e-health and smart home platform that empowers seniors to gain autonomy, participate in modern society, and achieve independence through ICT-based solutions.

I was responsible for the design and develop of videoconference API based on WebRTC technology, support voice and video conference between Android and PC.

The solution was developed on **Java, Python, GAE** and **WSO2**.

## **Barcelona Digital Technology Center**

**2012 - 2014**

**Easit4All** ( Junior Programmer / Analyst )

The EASIT4ALL project aims to provide to any person independently of its disability an accessible way to use main functionalities of social networks. Thus, Easit4all solution consist of a web interface that merges in a simple and intuitive way different social networks.

The software solution is a simple java based framework. It uses Java Spring Framework (MVC, Security, JPA and Social), HTML5, JQuery, CSS3 and MySQL database.

## **Barcelona Digital Technology Center**

**2012 - 2013**

**Saapho** ( Internship )

The main objective of SAAPHO is to support Active Ageing by assisting seniors to participate in the self-serve society preserving and enhancing independence and dignity through the application of innovative ICT-based solutions.

My primary responsibility was develop a Social Gateway. The objectives of this gateway are providing communication tools to discuss, activities with friends, share photos and videos via Facebook, Twitter and Google+.

The system was developed in **Spring Framework, Spring Social, Spring Security, MySQL, SOAP** and **Hibernate**.

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## Projects & Publications

### Publications

2018

In 2018, launched my personal blog where I start to write about programming related post. Posts has vary in content but mainly programming related. Most of them will be Proofs of Concept but I'm planning on writing about some general Computer Science.

Current Publication: [Macros-X](#) , [Polymorphic wrapper in C++](#)

### Insomnium Engine

2017 - 2018

I started developing my costume engine in January 2017. It's written in **C++11** and OpenGL. (**UI system, Entity Component System, Dynamic shadows, Model loading**)

### Daisho

2015

It's a 3rd person combat game with platform elements, developed by 3 artist and programmers under own game engine (**C++ & DirectX 11**) to PC. My primary tasks was integrate scripting game AI, physic and graphics engine.

### Human motion capture with KINECT (AR)

2014

It is application which capture the human movement with depth and the color camera and translate these movement on the virtual character.

The application was developed on **C++** and **OpenGL** and used libraries of OpenNI and Primesense. And to make character rig I was reused Pinocchio Project ( SIGGRAPH 2007 )

### BCNTours (AR)

2013

BCNTours is an application designed for tourists who are visiting Barcelona.

Its functions allow the user to get information about the plenty of points of interest in the city of Barcelona and will also tell you how to arrive to them using visual routes such as map and camera routes. They will also be able to identify those points of interest around you with both the camera and the map.

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## Languages

**English:** Level B of spoken and written

**Catalan:** Intermediate level of spoken and written (Universitat de Barcelona)

**Spanish:** Intermediate level of spoken and written (Escola Oficial de Idiomes)

**Hungarian:** Native level

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## Technique knowledge

### **Software engineering and UML.**

#### **Tools knowledge:**

- IDEs: Visual Studio, Eclipse and Netbeans
- Version control tools: Plastic SCM, JIRA, Git and Subversion
- Tools for modeling: 3D Studio Max, Blender
- Tools: Renderdoc by Crytek, VS Frame Analysis, AntTweakBar

#### **Experience to develop game IA:**

- Intelligence based on Behavior tree, Finite State Machine
- Path finding (Dijkstra and A\* algorithm)
- LUA scripting
- Learning Algorithms

#### **Knowledge to develop graphics engine:**

- Deferred shading
- Parallax mapping
- Shadows and illuminations ( cascade shadow, pointlights, spotlights and volumetric lights)
- Planar and cubemap reflection
- Post processing (SMAA, SSAO, DOF, Bloom, Godrays, Toon shading)
- Image processing (Seam carving, Bilateral filter)

#### **Other knowledge:**

- “Component Base Engine”
- Raycast, collisions, Mesh cooking, Actor controller on **Physx**
- Web Service, Spring Framework and Social Spring
- Extensive experience in design and coding of MySQL, NoSQL and msAccess databases
- General knowledge of data mining

#### **Experience in program languages:**

- 6 years in C++ (C++11 & C++14)
- 5 years in DirectX11, OpenGL, HLSL and GLSL
- 4 years in Android, Java and C
- 1 year in LUA scripting, MaxScript
- 3 years in Python, Matlab, HTML, JSP, Javascript and Servlet