



# Pau Sanchez Valdivieso

*Computer Engineer - Full Stack Developer*

Arenys de Mar (Barcelona)

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Programming experience: +10 years

## EDUCATION

**2 x Associate degree in Business Management** (*University - Escola Industrial de Barcelona*)

**1 x bachelor's degree in Computer Engineering** (*University of Barcelona*)

## JOB EXPERIENCE - PROJECTS

### **OPPORTUNITY NETWORK** (*Current job*)

Computer Engineer at Opportunity Network is my last job (since 2018) involving full stack development using Python/Django on the server side and JavaScript/jQuery on the client side.

Opportunity Network is a business match-making platform. The company is headquartered in Barcelona and has offices in London and New York City and representatives in 30 other countries.

Tasks I develop as an Engineer:

- Back-end using Python, Django and MySQL
- Front end with jQuery/JavaScript
- Software design
- Agile methodologies
- Linux/Nginx

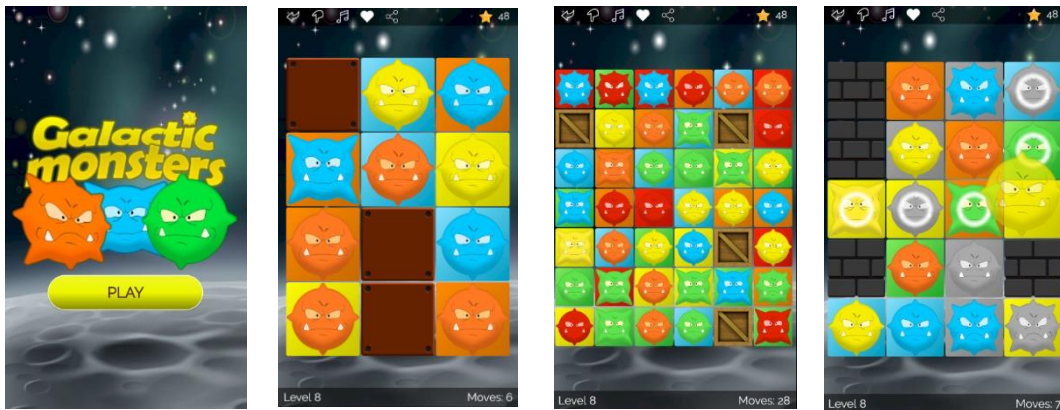
### **GALACTIC MONSTERS – ANDROID GAME (2018-2019)**

Galactic Monsters is my brainchild number one. It uses Artificial Intelligence algorithms to give rise a fun and addictive puzzle game programmed using Java and Android. An approximation of the A-Star algorithm is used to ensure that the movements given to the users are always enough to solve the puzzles. Furthermore, levels are generated automatically by means of a generator algorithm also based on A.I., so levels will be always different from each other. Following this principle is easy to notice that levels in this game are infinite.

Tasks I developed:

- User Interface and designs (Android XML layouts and adapters)
- Monsters (creation and design) by using Photoshop
- Game logic and algorithms (Java / Android)

- Maintenance tasks as an official Android Developer on Play Store



The game can be downloaded by following this link:

<http://www.galacticmonsters.com>

### PUZZLE WHICH CAN BE SOLVED BY ITSELF (2018)

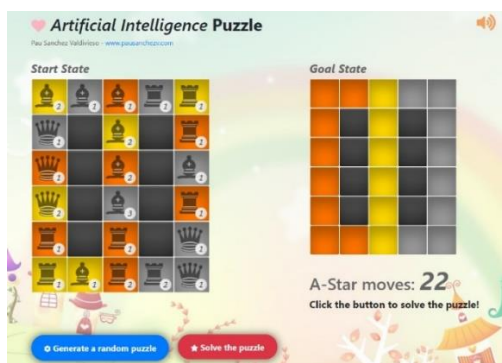
Artificial Intelligence project based on A-Star algorithm solving a NP-HARD problem using complex Heuristics to help the algorithms reach their goals and find the best solution using the minimum number of actions. This puzzle uses chess movements to be solved by itself.

These algorithms stand for a research made by myself involving several months until I attained the best possible solution.

Although this is not a game, the algorithms used in this project were used to create an Android game based on a puzzle several months later.

Tasks I developed:

- User Interface and designs (HTML5 and CSS)
- Puzzle logic and algorithms (Python + JavaScript)



The project and all its explanations can be found following the link:

<https://www.pausanchezv.com/en/artificial-intelligence/puzzles>

## STARTVAL - JQUERY SLIDER (2017)

StartVal is a website offering a web-slider to help other developers get an easy lightweight image carousel for their websites. It is programming for programmers because this website is useful especially for those people who are used to developing websites and applications or is starting to.

The slider which programmers can download from the website is fully implemented by using JavaScript and the jQuery library, and besides, the website provides users with an API to implement it easily.

Tasks I developed on it:

- User Interface and designs (HTML5 and CSS)
- Slider logic and algorithms (JavaScript - jQuery)
- Simple backend PHP (It does not need much backend)

The screenshot shows two pages from the StartVal website. The left page is the main landing page, titled "The ultimate jQuery Slider". It includes a "What is it?" section, a "Features" section with a list of customization options, and a "Get started" button. The right page is titled "startVal - Api & Options" and contains a table of "Slider general options".

Name	Default	Description
Multiple instances	No default value	Add multiple sliders on the same page. It is a trick instead of an attribute! <a href="#">Link to source!</a>
width	"100%"	Indicates the width of the slider. Initially, the slider has the 100% of width of html tag that contains it! <a href="#">Link to source!</a>
randomFront	true	True indicates that the first image that appears is the first image in the divider, false means that it is a randomly selected image! <a href="#">Link to source!</a>
timeEffect	300	Slide transition duration (in ms) <a href="#">Try it yourself!</a>
animation	300	Animation type: Select one of the following animations: "rotation", "translation", "vibration", "zoom". By default the animation is rotation! <a href="#">Link to source!</a>
overflowHidden	true	True means that the overflows of the images are hidden within the limits. If it is 'false' you will see the entire images out of bounds! <a href="#">Link to source!</a>

The project can be found by following the next link:

<http://www.startval.com>

## SAVE ALL THE ROBOTS (2016-2018)

'Save All The Robots' is one of my best creations. It is an online game involving lots of technologies such as communication client-server, Artificial Intelligence, Software design, etc... It was my final degree project, so I love it so much. It is a full website game which can be played from PC or mobile phone. (The PC version is much better than the mobile one).

Tasks I developed:

- Front-end: User Interface and designs (HTML5 and CSS)
- Back-end: The whole backend by means of PHP and MySQL
- AJAX: Asynchronous linked communications client-server
- Game logic and algorithms (JavaScript - jQuery)
- Design of characters by using Photoshop



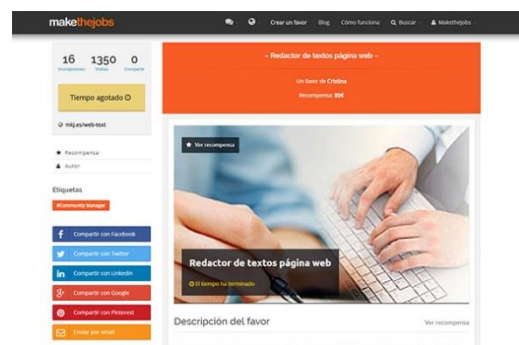
The game can be played by following the next link:  
<https://www.savealltherobots.com>

### MAKETHEJOBS (2013-2016)

Makethejobs is a website I developed. This site was one in which if someone needed a favor, they could publish it and then another user could sign up for the offer and get a reward that the publisher would offered to the person who did the favor. This project was capable gathering more than 3000 people when I opened its doors in 2014, in just two weeks. Now, it is being built yet again.

Tasks I developed:

- Front-end: User Interface and designs (HTML5 and CSS)
- Back-end: The whole backend in PHP and MySQL
- AJAX: Asynchronous communications client-server between PHP and JavaScript



The demo can be found here:  
<https://www.makethejobs.com>

### **Likneus S.L. (2007 - 2009)**

Elementary computing. It was more than 10 years ago when I was not Engineer yet, however I knew how to develop websites, so among other tasks, I developed the company website in 2010. Nowadays this company does not exist anymore.

### **Ciros Trade S.L. (2009 - 2011)**

Likneus S.L. became to Ciros Trade S.L. in order to solve economic problems due to the financial crisis that our country was going through, so my contract was renovated as a Ciros Trade worker. Unfortunately, 2011 was the year in which the whole enterprise had to close its doors forever. It was a turning point for me, because then I decided to start studying again to become an Engineer.

## SKILLS

### **Programming Languages**

Python – Java – PHP – HTML – CSS – JavaScript – jQuery – SQL – C – C++ – Android – Linux – Nginx – Django -- and many others

## ABOUT ME

I am a Computer Engineer who loves programming and enjoys developing games, applications and algorithms. If I had to describe myself using only a phrase, it would be "I am an outgoing person, easy to work with".

I really like programming Artificial Intelligence algorithms to find the best solution for a given problem, I love developing applications and thinking that someone is going to use them. It makes me feel that I am useful and I can contribute a little to improve anything.

I have been the founder of some well-known platforms like makethejobs.com, capable of joining more than 3.000 people after releasing the website in 2014, in only two weeks. I am really keen on developing games involving graphs, matrices, and search algorithms such as galacticmonsters.com or savealltherobots.com, both founded and developed by myself.

I think developers have a special power since we are able to imagine anything and make it real, and that is one of the most beautiful sensations I have ever felt. Rarely will you come across people capable of doing that! Everyone has their strengths and abilities, but a programmer is a programmer :)

I am currently working at Opportunity Network as a Python Engineer surrounded by amazing people helping me learn something new every day. I am enjoying this fascinating experience as much as I can without losing sight of my own projects.

All this makes me get better and better every day in every way as days go by.

## LANGUAGES

Catalan: Full native

Spanish: Full native

English: Advanced (Working on Proficiency)

## MY PROFILES AS A DEVELOPER

Linkedin: [linkedin.com/in/pausanchezv](https://www.linkedin.com/in/pausanchezv)

Github: [github.com/pausanchezv](https://github.com/pausanchezv)

Android: <https://play.google.com/store/apps/dev?id=4806729792120844729>

Website: [www.pausanchezv.com](http://www.pausanchezv.com)

## COMPUTER ENGINEERING (Qualification 8.1)



UNIVERSITAT DE BARCELONA

Autoconsulta d'expedient

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Z0002 Menció en Informàtica



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DADES PERSONALS

Cognoms i nom: SANCHEZ VALDIVIESO, PAU  
Nacionalitat: Espanyola      Sexe: Home

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PONDERACIÓ D'EXPEDIENT

**Crèdits comptabilitzats:** 240,00  
**Nota mitjana ponderada:** 8,1  
**Crèdits superats:** 240,00

**Comentaris:** sec-matematiques@ub.edu