



Pau Sanchez Valdivieso

Computer Engineer - Full Stack Developer

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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 in Opportunity Network is my last job involving full stack development using Python with 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 and Django
- Front end with jQuery/JavaScript
- Software design
- Agile methodologies
- Linux

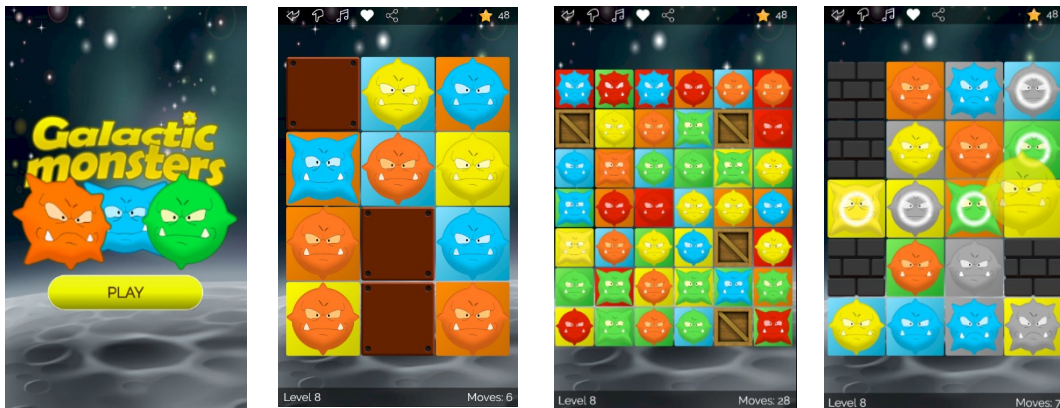
GALACTIC MONSTERS – ANDROID GAME (2018)

Galactic Monsters is the most recent project I have developed. 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 and played by following this link:
<http://www.galacticmonsters.com>

PUZZLE WHICH CAN BE SOLVED BY ITSELF (2017-2018)

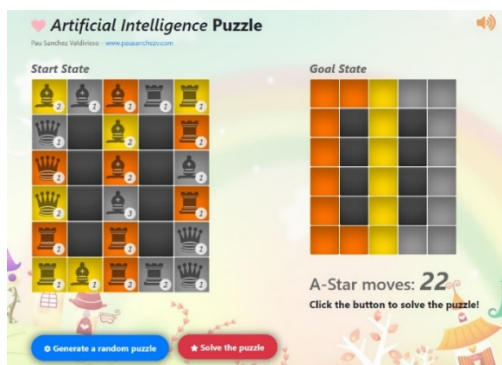
This is an Artificial Intelligence project based on A-Star algorithm solving a NP-HARD problem using complex Heuristics to help the algorithms reach their goals and find the best solution using the minimum number of actions. This puzzle uses chess movements to be solved by itself.

These algorithms stand for a research made by myself involving several months until I stumbled upon an efficient solution.

Although this is not a game, the algorithms discovered 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 and tested by 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 to get an easy lightweight image carrousel 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 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" list, 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! [Link]
width	"100%"	Indicates the width of the slider. Initially, the slider has the 100% of width of html tag that contains it! [Link]
randomFront	true	True indicates that the first image that appears is the first image in the div-older, false means that it is a randomly selected image. [Link]
timeEffect	300	Slide transtion duration (in ms) [Link]
animation	300	Animation type. Select one of the following animations: "rotation", "translation", "vibration", "zoom". By default the animation is rotation! [Link]
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! [Link]

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 mobile).*

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 (2013-2014)

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 offer to the person who did the favor. Everything was going well, so the first month I opened the website, my partner and I got more than two thousand users. Finally, a little argument between us led to close the website. It does not exist anymore, but I still have the domain which redirects to another project of mine.

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 communications client-server between PHP and JavaScript



The project cannot be found anywhere because it does not exist anymore.

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 some 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 – and many others

Programming Languages

Although hardly do I have worked using frameworks, I know how to use Django (Python framework) and a bit of Symfony (PHP).

Algorithms and techniques

POO – POE – Ajax – Dynamic programming – Backtracking solvers – Branch and bound techniques – Search algorithms such as Breadth first search, Uniform cost search, A* Search – Graph algorithms – Software Design, and so on.

ABOUT ME

My name is Pau and I am a Computer Engineer who loves programming and enjoys developing games, applications and algorithms. I obtained my degree at the University of Barcelona. If I had to describe myself using only a phrase, it would be "I am an outgoing person who is easy to work with".

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

If I had to choose my favorite programming language, it would probably be Python due to its simplicity and particular syntax, however I love the other ones too. I feel something special for web development because when I was a child I used to develop websites and nowadays I am still doing it.

I think developers have a special power, like Superman, he can fly through the sky, but we are able to imagine something and make it real. There are few people who are able to do that. It is one of the most beautiful sensations I have ever felt. All people have their strengths and abilities, but a programmer is a programmer.

Most of my experience comes from my creativity and my love for programming and solving problems. Hardly do I have work-expertise in big companies, but I do have a powerful knowledge of Computer Engineering and programming languages, being able to perform in ways you could never imagine.

In addition to work and programming, I love spending my spare time playing swimming, biking, and running. Since I was a child, sport has always been important in my life. I believe that both body and brain are our weapons to face life, so we must take care of them.

And eventually, I am studying English to obtain the Advanced Certificate, which I really enjoy.

LANGUAGES

Catalan: 100% native

Spanish: 100% native

English: B2 (First) – Working on C1 Advanced

MY PROFILES AS A DEVELOPER

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

Github: github.com/pausanchezv

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

Website: www.pausanchezv.com

COMPUTER ENGINEERING (Qualification 8.1)



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

PONDERACIÓ D'EXPEDIENT
Crèdits comptabilitzats: 240,00
Nota mitjana ponderada: 8,1
Crèdits superats: 240,00

Comentaris: sec-matemàtiques@ub.edu