Juan Casado Ballesteros, 6 of September of 1998.

Plaza Juan XXIII Nº5 8ºB Alcalá de Henares,
Madrid 28804, Spain.
+34 601 391 502
juancasado@mrblissfulgrin.com

Juan Casado Ballesteros

http://www.mrblissfulgrin.com
https://github.com/JuanCasado
https://www.linkedin.com/in/juancasadoballesteros/

Employment

Full stack robot developer **Complubot** **Spring 2017 - Today**

Pollotron-Project (Under development) Fall 2018 - Today

- C++ Linux/ROS based robot that that performs SLAM to navigate through the environment.
- Custom designed motor controller based on ATmega2560.
- Image recognition with Intel Real Sense and OpenCV.
- Multi-platform desktop C++ app to monitor and control the omnidirectional velocity-encoded motor platform.

MegaTrueTrue Summer 2017 – Fall 2018

- C++ modular robot based on Arduino that imitates the behavior of TrueTrue robot while being eight times bigger.
- Low level sound made by generating a sinusoidal wave with processor interruptions and a R-2R ladder.
- Multi-platform mobile and desktop C++ app to remotely control the robot over TCP.
    - This robot debuted on SIMO robotics fair on November 2018 at Madrid.

Software engineer **Complubot** **Fall 2015 – Summer 2017**

ColdPlay-Robot Fall 2016 – Summer 2017

- C++ Arduino based robot that uses a Pixy camera to perform artificial vision over real time video.
- The robot detects objects by color and classify them under color matching compartments.

Alien Soccer Fall 2015 – Fall 2016

- C++ Arduino based distributed robot system communicated by Bluetooth.
- Two robots cooperate one with the other to play soccer with the Spanish Robocup 2015 Junior rules.
- Each robot had a modular architecture with dedicated software and hardware to control each sensor including a compass and a 360 infrared vision system and each encoded motor.
    - This robot was the third out of eight in at Imperdibles2.0, a European robot soccer competition.

Education

Alcalá de Henares, Madrid **Univesity of Alcalá de Henares** **September 2016 - Today**

- Computer Science degree. 158/240 credits completed, all I signed in for, with a GPA of 3.1/4 (7.75/10).
- Coursework: Statistics, Linear algebra, Calculus, Logic, Algorithmic, Data structures, Operative systems, Data bases, Memory Shared Concurrent programming, Robotics, Functional programming, Software engineering, Physics, Distributed programming, Network management, Artificial Intelligence, Compilers, Object Oriented Programming.

Alcalá de Henares, Madrid **Brithis Council** **September 2017 - Today**

- TOEFL 110-114 Cambridge CAE C1.2 level English classes. (2018 - Today)
- TOEFL 94-101 Cambridge CAE C1.1 level English classes. (2017 - 2018)

Technical experience

- Multi-threaded memory shared simulation of a fuel station done in JAVA. It could be remotely monitor through TCP connection over another JAVA application.
- Color Queue: iOS and Android app in C++, one user creates a TCP server to allow others connect and play together.
- Shape animator done in python with pygame, it uses a complex OOP hierarchy to determine the animations applicable to each of the shapes.
- JAVA program that translates JSON to .dot files and them to .svg using a Parser and a Lexer built with antlr4.
- Creation and maintenance of a relational SQL data base as a university project.
- Game of life: iOS and Android app done with cocos2d-x game engine that simulates Conway's Game of Life.
- Set of common algorithms implemented in Swift (greedy/simple recursion/backtracking/dynamic).
- Shutter Earth: 2d platform shooter in JAVA over slik2d game engine.
- Linux shell that used POSIX calls to the OS and implemented a custom pipe and redirection system.

Programming Languages and Technologies

- C++, C, JAVA, python, Swift, R, Haskell, Prolog, SQL, XML, JSON, Markdown.
- ROS, cocos2d-x, pygame, slick2d, Swing, antlr4, OpenCV TensorFlow, grapviz.
- PostgreSQL, MySQL, Linux, Git, GitHub, JIRA, WordPress.
- NetBeans, XCode, CLion, PyCharm, Sublime Text, Visual Code, Atom, Code Blocks, Android Studio, KiCad.