

# Jaime Arrocha

## Software Engineer

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## Professional Summary

Experienced software engineer with over 7 years developing complex multithreaded networks systems for various industries. Specializing in C, C++, Assembly, C#, Golang and Python for cross-platform software and embedded devices.

## Technical Skillset

- **Languages:** C/C++, Assembly, Go, Python, C#, Java.
- **Interfaces:** UART, SPI, I2C, BLE, CAN.
- **RTOS:** uBoot, Linux-RT, mBedOS, freeRTOS.
- **MicroServices:** gRPC, Protocol Buffers, JSON, REST.
- **Hardware:** STM32, MSP430, RPi, BBB.
- **Tools:** Yocto, GCC, Schematics, Logic Analyzers.
- **Linux:** Device Drivers, Buildroot, Yocto.
- **Networking:** AWS, Azure, MongoDB, SQLite.

## Experience

**Embedded Software Engineer Consultant** - 01/2022 to Present  
*Universal Electronics Inc. – Carlsbad, CA - Remote*

**Environment:** C, C++, Python

- Integrate over-the-air (OTA) update system for custom home automation smart devices.
- Develop custom Linux BSP for newly developed product.

**Embedded Software Engineer** - 12/2020 to 11/2021

**Environment:** C, C++, C#

*Beckman Coulter – Miami, FL - Remote*

- Designed software solutions for a cross-platform embedded device.
- Developed dynamic libraries for native real-time threads management on Linux for .Net projects.
- Created tools to help debug memory collection issues for .Net.

**Senior Software Engineer** - 05/2019 to 12/2020

**Environment:** C, C++, C#, Go, ObjC

*Gladinet Inc. – Boca Raton, FL*

- Worked on the development of a distributed cloud file system for Windows, Mac, and Linux.
- Design involved both user space for cloud service and kernel space for the virtual filesystem.
- Maintained a client branding system for app customization based on C# and a benchmark client on Go.

**Senior Software Engineer** - 07/2017 to 05/2019

**Environment:** C, C++, Python, Go

*Independent – Boca Raton, FL*

- Provided consulting services to clients with RESTful network applications, CI deployments, Linux based automation tools and graphic engines.

**Embedded Software Engineer** - 08/2016 to 07/2017

**Environment:** C, C++, Python

*Intel Corp. – Austin, TX*

- Integrated unit-testing framework and code coverage analysis to the embedded software cycle.
- Worked on BSP testing, cross-compilation tools and uBoot configuration for Linux on embedded devices.
- Participated on development for a prototype TCP-based communication protocol for commit verification.

**Software Integration Engineer** - 01/2014 to 05/2016

**Environment:** C, C++, Python, Bash

*Sycomp – Dallas, TX*

- Wrote customized programs for configuration, booting, image backup and restore of Linux-based firewalls.

**Software Network Engineer** - 04/2013 to 01/2014

**Environment:** C, C++, Python

*One Cloud Networks – Dallas, TX*

- Developed tools for monitoring of voice signals and network usage for a UNIX based system.

## Professional Development

**Udacity:** Training on Autonomous Systems and Computer Vision – 2022

**edX:** Training on Linux based Wireless Embedded Devices – 2022

**Linux Foundation:** Developing Linux Device Drivers and Linux Kernel Internals – 2015

## Education

**Master of Science:** Electrical Engineering, Expected in Fall 2022

*University of Colorado – Boulder, CO*

**Bachelor Science:** Electrical Engineering

*Missouri University of Science and Technology – Rolla, MO*

## Interests

Autonomous Systems, Cloud Distributed Systems, RTOS, Embedded Systems, Machine Learning.