# **David Alejandro Rondón Berrío**



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- <u>blackphotografy@gmail.com</u>
- Electronic Engineer | 2015 | University of Antioquia

Sex Male | Date of birth 11/03/1991 | Nationality Colombian

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### **Career Summary**

David Rondón is an electronic engineer who has worked for more than 4 years in education and both hardware and software development; in regard to the hardware, he has designed and implemented various IoT devices for data acquisition & remote controlling and ,respect to the software, he has built different desktop, web and mobile apps using different programming languages and frameworks such as <a href="Oto-the-Str Adv by Globant">Oto-the-Str Adv by Globant</a>. He loves algorithms and he can easily learn other programming languages.

Nowadays, David Rondón has been studying and working hard to get and improve his skills about web development to become a great UX/UI front-end developer.

# **Summary of Qualifications**

#### Skills

- C, C++, QML\*
- HTML & CSS\*
- Javascript\*
- Node JSExpress JS
- Git & GitHub\*
- Scrum(Basics)
- React(Basics)Vue(Basics)
- MongoDB<sup>2</sup>
- Arduino\*
- MySQL
- Java & Python
- ESP32 IoT\*
  - Eagle CAD\*
- Amazon Alexa

MATLAB\*

Mar. 2019 - Now

- Visual basicApache server
- OpenCV
- English (B1-intermediate level)

# Languages

• Spanish (native speaker)

# **Career History**

### Parque Explora, Medellín, Colombia

Interactive technologies professional (Interactive museums)

**Project:** Reacciona a tiempo - Web app

- Coordinated the project production
- Defined technologies and devices to be used(Unity 3D)
- Elaborated the software architecture
- Developed the software
- Compiled the software to different platforms: Android, iOS and Web
- Made performance and security testing
- Wrote technical and user manual

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\*Advanced level

**Project:** Parque Explora map - Web app

- Coordinated the project production
- Defined technologies and devices to be used(Leaflet)
- Developed the software
- Deployed the app in the web server

Project: Crea tu música - make your music

- Coordinated the project production
- Defined technologies and devices to be used
- Compiled and integrated OpenCV libraries for images processing (Qt Creator)
- Successfully, integrated the Ximea camera SDK with OpenCV libraries
- Designed and implemented the algorithm to recognize different patterns through a Ximea Camera
- Elaborated the software architecture
- Made proprietary libraries for Midi reproduction

**Project:** Ministerio de educación nacional (MEN) - Maker space

• Defined the technologies, devices and contents for a *maker space* into the Colombian Ministry of National Education

**Project:** Laberintos - labyrinths (<a href="http://museodelamola.org/">http://museodelamola.org/</a>)

- Defined technologies and devices to be used
- Developed the main software to play a 4K video-loop and implemented an <a href="https://homography">homography</a> module for correcting the projector perspective (C++, QML and Qt Creator)

**Project:** Atuendos – *Guna dule clothes* (<a href="https://fundacionalbertomotta.org/museo-de-la-mola/">https://fundacionalbertomotta.org/museo-de-la-mola/</a>)

- Defined technologies and devices to be used
- Developed the synchronization software (C++, QML and Qt Creator)

**Project:** From the bridge of the ship - *youtube demonstration* (http://visitcanaldepanama.com/centro-interactivo-del-canal-de-panama/)

- Designed, produced and programmed the electronic system that process and send the information generated for each device in the control panel to the main software (Eagle, Arduino, C++ and Visual studio)
- Elaborated the finite states machine (FSM) that define the behaviour of the main system
- Successfully, developed the main software of the interactive simulator (C++, QML and Qt Creator)
- Succeeded to synchronize the playback of three videos with dynamic playback of multiple audios
- Implemented the user interface

#### ITM, Medellín, Colombia

Jul. 2017 - Nov. 2019

As an occasional lecturer He has taught about...

- Fundamentals of programming using pseudocode, C, C++ and processing
- Fundamentals in electronic both analog and digital
- Microcontrollers principles
- Fundamentals of Arduino platform
- Sensing and automation

#### Rhemo, Medellín, Colombia

May. 2017 – Feb. 2019

TI and instrumentation designer (Project Rhemo Care – Equine healthcare)

- Designed the finite states machine (FSM) that define the alerts system of the Rhemo mobile app
- Designed and implemented a light protocol, based on MQTT, for the data collection from horse farms through GPRS networks.
- Implemented, in an embedded system, a proprietary algorithm for the heart rate acquisition in horses (Arduino, ESP32, Wiring and C++)
- Built two electronic wireless devices using Bluetooth low energy (BLE), GPRS and GPS

#### University of Antioquia, Medellín, Colombia

Mar. 2014 – Jan. 2016

Design engineer (Project SMARt - public transportation and research)

- Designed and implemented an electronic sensor subsystem to extract relevant information from public busses. (C, C++ and Qt)
- Developed a specialized UI for the sensors data visualization (C++ and Visual Studio)
- Supported the development of the Auto-diagnosis module (DBUS(Linux), C++ and Qt)

#### **Education**

**Acamica,** Medellín, Colombia (*in progress*)

Feb.2021 - Aug. 2021

https://www.acamica.com/desarrollo-web-front-end

Desarrollo web front end

Make it real bootcamp, Medellín, Colombia

Feb. 2020 - May. 2020

https://makeitreal.camp/

Fullstack JavaScript

University of Antioquia, Medellín, Colombia

Aug. 2008 - Sep. 2015

http://www.udea.edu.co/
BS, Electronic Engineering