Arturo Veras Olivos | Curriculum Vitae

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Profile

I'm a goal-driven problem solver with a knack for aligning solutions with team objectives. My self-taught, curious nature and quick learning ability allow me to adapt easily to diverse work environments. I thrive on challenges, viewing them as opportunities for growth. I maintain good physical condition to ensure peak performance in all my tasks.

Experience

Professional Position

Uqomm (`www.uqomm.com`) **Con Con, Chile**

Firmware and Software Developer *2 years 11 months / Agosto 2021 - Present*

As a Firmware Developer, I have been responsible for designing and programming firmware for STM32 Cortex M0 microcontrollers. This firmware is used to control radiofrequency equipment. In my role as a Backend Developer, I have developed and overseen software for monitoring radiofrequency equipment measurements using open-source software. Additionally, I have experience in server administration, maintaining servers on both Google Cloud and local servers to ensure smooth operations.

BlackGPS (`www.blackgps.com`) **Santiago, Chile**

Hardware Engineer *4 years 2 months / July 2017 - August 2021*

As a Design and Hardware Engineer, I was responsible for designing, manufacturing, programming, testing, and commissioning a device to prevent truck theft using GNSS and GSM signal jammers.
In my role as Hardware Support, I configured and supported hardware for fleet control and management, particularly devices from brands like Teltonika, DCT Syrus, and ERM Starlink.
As a BackEnd Developer, I developed new features on the server, processing information from tracking devices using SpringBoot in Java to integrate CANBus data from trucks into the server via cellular.
In my capacity as a Flutter developer, I implemented new functionalities in the mobile app using Flutter, established Bluetooth communication with the tracking device, and improved the user interface.

Prosismic SpA **Viña del Mar, Chile**

Electronic Engineer *11 months / January 2017 to November 2017*

As an Electronic Engineer, I developed a functional prototype for commercial validation of 80 devices that would be part of an early earthquake sensor network using a Photon Wifi IoT board from Particle.

Deuterio - Hydrogen Generators **Viña del Mar**

Founder, Chile *7 month / June 2016 - December 2017*

A project called Deuterio emerged from the EPS project, focusing on developing new hydrogen generation technology. As a Commercial Director, I was responsible for seeking financing through public or private instruments and generating business models for projects. In my role as a Researcher, I conducted research in electrochemistry, focusing on designing and developing prototypes for efficient oxyhydrogen gas generation. Lastly, as an Electronic Developer, I participated in microcontroller programming for signal generation and assembly of electronic test benches.

EPS Project **Viña del Mar, Chile**
Technical Director *7 month / January 2016 - July 2016*
The project aimed to build a hydrogen generator using three innovative technologies: pulsed electrolysis, photolysis with UV rays, and sonolysis with high-frequency electric piezoelectric transducers. My responsibilities included coordinating, planning, executing, and supervising teams in the areas of Electronics, Chemistry, Design, and Sales for an R&D project funded by CORFO's Innova department. As an Electronics developer, I programmed a microcontroller to generate a variable pulse train in frequency and duty cycle necessary to excite the electrolyzer, and conducted efficiency tests on a power generator.

HH Motors Project **Valparaíso, Chile**
Electronic Engineer *6 month / July 2015 - December 2016*
Focused on researching, energy efficiency testing, analysis, and validation of an alkaline electrolyzer. Designed and implemented a circuit to modify the electronic fuel injection system of a vehicle, conducting fuel performance tests.

Scientific Technological Center Valparaíso **Valparaíso, Chile**
Research Intern *2 month / January 2014 - Febraury 2014*
Responsible for researching and developing a device that would allow a GPU to be connected to a PC via a common interface such as USB or Ethernet, enabling the execution of Parallel Computing applications. During my research, I evaluated different alternatives and presented a detailed report covering information about various devices, their features, advantages, disadvantages, and prices. More details about my project can be found here: `https://github.com/mavillan/proyectoRpi`.

Laboratory of Instrumentation and Photonics **Santiago , Chile**
Intern Programmer *2 month / December 2012 - January 2013*
Programmed a Xilinx Virtex-5 XC5VLX110T-1FF1136 FPGA using LabVIEW and Python modules. I was responsible for installing all the necessary modules for the FPGA to function properly, involving error detection and correction, meeting dependencies, and fixing the code.

Federico Santa María Technical University **Valparaíso, Chile**
Research Intern *2 month / January 2009 - February 2010*
Tasked with researching the latest microcontrollers and development boards on the market to choose the next development kit for the electronics department's laboratory course. Also responsible for maintaining a website displaying all the job offers from the electronics department, updating the information based on received emails.

Other Jobs

Bottai SA. **Arica, Chile**
Administrative Assistant *January 2015 - March 2015*
Conducted tests for quality control of different types of concrete.

Entel **Valparaíso, Chile**
Salesperson *October 2013 - November 2013*
Directly door-to-door selling Entel products for households, including internet, satellite television, and telephony.

Education

Federico Santa María Technical University **Valparaíso, Chile**
Electrical Engineer - Computers Major *2006–2014*

Thesis

Title: *Implementation of a Path Generator in a Navigation System for a Cognitive Mobile Robot*

Description: Integrated a route generator into the Cognitive Memory and SLAM (Simultaneous Localization and Mapping) features of the mobile robot IRMA-III to enable autonomous movement in search of a target.

Technical Skills

Programming Languages: C, C++, Java, Python
Networking & Communications: TCP/IP, LoRa, GPS, I2C, SPI
Scripting: Bash, Ansible
Version Control: Git
Microcontroller Programming: STM32, ESP32, Arduino
Web Frameworks: React, Express
Cloud Platforms: Google Cloud Compute Engine
Mobile Development: Flutter
Operating Systems: FreeRTOS, Linux
Tools: Open Source

Management and Interpersonal Skills

Technical Experience: Firmware and software development, basic electronic circuit design, technology integration.

Project Management: Coordination of cross-functional teams to achieve objectives.

Innovation: Participation in the development of new technologies and features.

User-Centered Approach: Consideration of user needs and experiences in product development.

Adaptability: Ability to quickly learn and adapt to changes in products and industries.

Languages

Spanish: Native

English: Advanced Reading, Intermediate Speaking

Contests and Workshops

Agile Methodologies Training — **Uqomm**
HoruS Management Strategy — *November 2022*

Agile Development: Scrum + Kanban — **BlackGps**
Powered by eClass — *July 2019*

Analog Integrated Circuit Design — **Synopsys - UTFSM**
Summer School — *January 2017*

Apply Your Idea — **Copec UC Foundation**
Winner of I+D Applied Contest with HH Motors project — *August 2015*

EXPOTEC — **UTFSM**
Contest-Exhibition of Technological Projects — *October 2015*