Diego Mendes Moreno

Brazilian, 05/Jan/1991
Vila Madalena - São Paulo / SP - Brazil

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Skills

Embedded software/firmware development, code and bench debugging, board test and bring up, prototyping, continuous learning attitude, presentation ability and customer communication
Portuguese native speaker - Fluent English - Advanced Spanish - Intermediate French

Education

Impacta Tecnologia, São Paulo, SP (Brazil) - july 2021 (expected)
MBA Software Engineering

Centro Universitário da FEI, São Bernardo do Campo, SP (Brazil) - July 2015
Bachelor of Electrical Engineering (Electronics)

University of Alabama at Birmingham, Birmingham, AL (USA) - Summer 2013
Bachelor of Electrical Engineering (one-year Student Exchange Program)

- Science without Borders Program sponsored by CAPES (Brazilian government)

Experience

J.Assy, São Paulo, SP (Brazil)
Product Development Engineer - February 2021 - Present

- Development of embedded software for precision planting (Agribusiness) products
- Working with Agile practices and tools (Jira, Git/BitBucket, Confluence)
- Developed, tested and documented a wireless sensor gateway with a CAN API interface
- Worked to add, refactor and integrate code into a large decentralized codebase
- Developed a Proof of Concept (PoC) IoT project end-to-end, with Wi-Fi connectivity and a RESTful Web Server that hosts a Web App for monitoring sensors
- Also built the Web App for the PoC with HTML, CSS and JavaScript that consumes the API created in the RESTful Web Server
- Implemented a version control friendly Documentation practice with Markdown and PlantUML for product docs

Karimex Componentes Eletrônicos Ltda., São Paulo, SP (Brazil)

Field Application Engineer - May 2014 - February 2021

- Development of embedded software for 8-bit, 16-bit and 32-bit microcontrollers for various applications
- C and Python development for Embedded Linux
- Embedded Linux customization using the Yocto Project
- Development of graphical user interfaces (GUI) with Qt
- Active use of Git/GitHub for version control
- Use of IoT Web services (MQTT/HTTP) like Tago.io and AWS
- Experience with Wi-Fi (IEEE 802.11), Bluetooth Low Energy (BLE) and TFT control stacks
- Technical training on embedded systems
- Technical support on embedded systems and power electronics
- Development and delivery of product and prototype demonstrations
- Technical visits in customers
- Electronic component specification and cross reference for various applications

Itaú Unibanco S.A., São Paulo, SP (Brazil)

Intern - October 2013 - May 2014

- Development of macros (VBA programming) to search for indicators in databases in Excel with easy interface
- Optimization and automation of spreadsheets

Centro Universitário da FEI, São Bernardo do Campo, SP (Brazil)

Research Intern - October 2013 - January 2015

- Development of an embedded frequency inverter solution for UPS (uninterruptible power supply) systems

University of Alabama at Birmingham, Birmingham, AL (USA)

Research Intern - Summer 2013

- Experience in the use of high-performance computing (HPC) to process diffusion tensor imaging (DTI)
- Web content creation and management for the University website

Andrade & Canellas, São Paulo, SP (Brazil)

Electrical Engineer Intern - November 2011 - June 2012

- General activities in energy management

Volkswagen do Brasil, São Bernardo do Campo, SP (Brazil)

Salão do Automóvel consultant - September 2010 - November 2010

- Performed the general presentation of the Volkswagen’s Hydroelectric Plant at the São Paulo Car Fair Salão do Automóvel

Vitalux Eficiência Energética, São Paulo, SP (Brazil)
Electrical Engineer Intern - July 2009 - August 2010

- Assisted in energy efficiency projects in analysis of energy consumption
- Optimization of Excel spreadsheets

Toledo do Brasil, São Paulo, SP (Brazil)
Maintenance Electrical Apprentice - July 2006 - July 2008

Passion projects

Standalone STM8 Programmer
It is a Standalone programmer for STM8 microcontrollers using a modified development board. I refactored and expanded the code so it is easier to use (all config done in one file through a couple define statements). I also made a comprehensive step by step guide on how to modify the board, configure the firmware, load the binary and finally flash the STM8s microcontrollers.

Hackathon BlueHack 2016 from IBM Brasil
I was a part of the Winning team (Project EcoBox) at IBM's Hackathon in São Paulo (Brazil) in November/2016. We developed a Proof of concept of a IoT smart public recycling container, using Bluetooth, servo motors and the Arduino prototyping platform. I wrote the embedded code for the motor control and the Bluetooth interface.