



Adrian Enrique Viquez Bonilla

Electrical Engineering

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TECHNICAL SKILLS

Computer Skills

- JavaScript, React
- Npm, Nodejs, Express
- SQL, MongoDB
- .NET
- C, C# (Unity)
- HTML, CSS
- Processing, P5.js
- Git, Mercurial

Electrical Knowledge

- Circuit Analysis/Design
- Control Theory
- Transmission Lines
- FPGA Architecture
- Motors Theory
- Stochastic Signals
- Multivariable Calculus
- Semiconductors Properties

Electrical Equipment

- Soldering Iron
- Reflow Oven
- Power Supply
- Multimeter
- Oscilloscope
- Function Generator
- Altium, DE1-Soc
- Microcontrollers, Arduino

ACADEMIC & CO-OP STATUS

Academic Program

- 6 of 8 academic terms completed
- Anticipated date of graduation: May, 2020

Co-op Status

- Completed 3/5 terms; available for 4 beginning May 2019

COOP WORK EXPERIENCE

Connor, Clark & Lunn Financial Group

September 2018 – April 2019

System Developer

- Develop front-end and back-end programs to assist and/or improve existing/new projects through MS SQL, SSRS, C#, VB and Powershell, using Mercurial as the version control tool.
- Gather, review, and analyze business requirements to design and develop efficient systems by contemplating the systems' development life cycle, supporting user testing and following the MVC principles and TDD.

Department of Electrical and Computer Engineering at UBC

May 2018 – September 2018

Vancouver Summer Program Coordinator

- Organized UBC's Vancouver Summer Program by executing administrative duties, including scheduling, emailing, interviewing and event organization for approximately 300 students.
- Communicate professionally with team members, faculty and students by preparing and delivering multiple formal, instructional and social oral presentations on a weekly basis.

PERSONAL PROJECTS

Horus – Cross Platform Desktop Application

July 2018 - Present

- Developing an Electron.js based application to display data of a solar panel located in Nicaragua for UBC's Sustainingengineering student team, using HTML, CSS and Javascript, with libraries like Node.js, React and Chart.js.
- Improving the UI/UX by refactoring the Front-end through React, React-routing, Material-Ui and Bootstrap, strengthening concepts such as the efficiency of the Virtual DOM, scalability of using npm, and utility of the shell.

SpaceCamp – Cross Platform Desktop Application

September 2018 – Present

- Developing a Node.js web application following the RESTful route convention that is able to display, create, edit, update and delete a variety of space related photos using HTML, CSS, Javascript and Ejs.
- Making use of libraries such as Express for routing, MongoDB for database services and Bootstrap for styling, including essential functionalities such as user authentication with help of passport.js.

Jumper – Unity 2D Game

May 2018 – June 2018

- Programmed a 2D side-scrolling platformer game where the main character encounters enemies, obstacles and coins, where I designed the UI, rendered sprites and used in-game physics in Unity.
- Strengthened my programming abilities in C# by making use of fundamental principles of OOP as well as getting acquainted with concepts like polymorphism, dictionaries and structs amongst others.

TECHNICAL PROJECTS

Control-based Spherical Wrist

January 2018 – April 2018

- Programmed PID controllers for a 2-DOF spherical wrist-controlled laser module that draws figures on a flat surface based on specified PID values, using DC motors built from gathered materials.
- Designed PCB shield with optimized routing to replace all the circuitry and control operations of the spherical wrist, including motor drivers, voltage I/O pins and quadrature decoders using Altium software.

Drone Creation

December 2017

- Built a 24x24cm multirotor RC quad copter out of individual gathered components by utilizing soldering and programming skills to develop a fully functional 1080p video capturing drone.
- Improved drone's crafting and flying skills by testing the performance of several ESC's, flight controllers, batteries, and motors for best voltage to RPM ratio.

WORK EXPERIENCE

Hollister (Vancouver, BC)

May 2017 – August 2017

Brand Representative

- Assisted customers in a friendly manner by finding, organizing and providing requested items.

ENGINEERING STUDENT DESIGN TEAM

Sustainingengineering (UBC)

August 2018 – Present

Member

- Working on a GUI to display information provided by a Solar Panel, located in Nicaragua

Formula Electric Team (UBC)

August 2016 – August 2017

Member

- Worked on an electric formula car's accumulator and PCB design and debugging with Altium software.

Unmanned Aircraft Systems (UAS) (UBC)

January 2016 – August 2016

Member

- Worked on a 2 by 2 meters drone's electronic speed controllers, gyroscope, motor and battery response.

VOLUNTEER WORK EXPERIENCE

Un Techo Para mi País (A Roof for my Country)

December 2012 – December 2015

Volunteer (builder)

- Constructed three emergency shelters, interacted with people within the communities and came up with realistic and sustainable solutions for future generations as a member of the "Techo" organization.

EDUCATION

The University of British Columbia

Bachelor of Applied Science - Electrical Engineering

Expected May 2020

ACTIVITIES AND INTERESTS

- Fluent in both English and Spanish; level B in French.
- Favorite Activities – any sport, hiking, climbing, gaming, coding, reading, cinema appreciation, foosball, ping pong.
- Guitar/Piano Player – performing since sixth grade (guitar) and since 2017 (piano).