New York, NY
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RENATO VILCA VALDERRAMA

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EDUCATION

The City College of New York — New York, NY
Bachelor of Engineering, Electrical Engineering — Expected Graduation Date: Jun 2021

SKILLS

- Core Qualities: Adaptable, Patient, Goal-oriented
- Software: Riverbed Modeler, Simulink, MPLAB, Multisim, LTspice, LabVIEW, Microsoft Office
- Hardware: Embedded Microcontrollers, Soldering, Oscilloscope, Function Generator, Multimeter
- Programming Languages: MATLAB, C++, Verilog
- Languages: Fluent in Spanish

PROJECTS

- **Microfluidic Bioprinter** As our capstone project, a group of classmates and I are creating a bioprinter capable of printing microfluidic structures out of hydrogel. We are currently modifying a 3D-printer to use a piezo-electric pump, solenoid valve, and an adjustable laser to extrude and cure material into the desired shape with modified G-Code. (Spring, 2021)

- **CX – 6 Rocket** As part of the Harlem Launch Alliance, a student-run rocketry organization, I am currently cooperatively designing the CX – 6 rocket's electrical recovery system and assisting in its integration into the airframe. I also oversee the electrical section's competition compliance and am helping develop solutions to the design constraints imposed by the CX - 6 Rocket Technical Specifications. (Spring, 2020)

- **6-Node Network Design** To compare routing algorithms, I used the Riverbed Modeler software to simulate a 6-node network and compare average delay, utilization, and speed of convergence. My results favored the Routing Information Protocol. (Spring, 2020)

- **Audio Amplifier** To create a PA amplifier, a classmate and I assembled and combined a common emitter amplifier and a push-pull power amplifier using integrated circuits on a protoboard. I tested the final product using inputs from a function generator and then a microphone. (Spring, 2019)

EXPERIENCE

Maximus — New York, NY
Bilingual Consumer Services Specialist III — Jun 2020 – Aug 2020
- Assisted consumers in processing government-sponsored health insurance plan applications on the New York State of Health Marketplace in both English and Spanish
- Navigated various databases to fulfill changes, updates, and requests regarding consumer health insurance marketplace accounts

Frette — New York, NY
Sales Support — Dec 2015 – Jan 2017
- Worked cooperatively with stockroom staff in preparing the store for inventory check with multiple pre-counts
- Boxed and shipped items to fulfill orders or requests from other Frette locations
- Aided the sales team with product organization and with technical support across several devices

DESIGN CHALLENGES / HACKATHONS

- **MakeMIT Hackathon** Collaborated with a team of three to design an automated seeding and ice-melt rover. Prototype was awarded prizes in the "Sustainability" and "Best Home Robot" categories. (Spring, 2021)

- **AECOM & CCNY MTM COVID-19 Design Challenge** Worked with a team of five to design an N95 mask attachment that reduces contamination. Currently using awarded competition funding for further prototyping and to submit a provisional patent. (Summer, 2020)