

# Ronald Mera

Electrical Engineering BS graduate interested in web and mobile development

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## EXPERIENCE

### **AMP & CSTEP Internship, New Paltz, NY — Summer Intern**

May 2019 - July 2019

Prototyped water turbines using SolidWorks. Analyzed and compared initial turbine designs to expose flaws. Worked with a team of engineering interns to improve turbine design by decreasing manufacturing cost, increasing energy efficiency, and improving marine-life safety.

## EDUCATION

### **SUNY New Paltz, New Paltz, NY — Electrical Engineering (B.S)**

August 2017 - May 2021

### **CUNY John Jay College, New York, NY — Computer Science**

August 2016 - May 2017

## PROJECTS

### **Wearable Device (Posture Corrector)**

Worked with a team to create a wearable device that notifies a user to fix improper posture. A circuit of an IMU, DRV and vibrator motor were connected and programmed to notify a user's improper posture. A vibrator motor would vibrate for notification when the IMU sensor detected bad posture by measuring linear acceleration and angular velocity. The DRV sensor allows the ability to control the vibration sensitivity of the vibrator motor using bluetooth on an application developed on Swift.

### **Partial Differentiation Matlab Code**

Composed of a Matlab code to solve for various partial differential equations by using finite differences methods by implementing numerical methods

### **FPGA Board Clock**

Used Quartus software to develop a Verilog code that allowed a DE-10 board to work as a military/standard 12 hour clock. The DE-10 board was programmed to display time with the board's seven-segment display.

## SKILLS

Circuit Design, communication, problem solver, attention to detail

## TECHNICAL SKILLS

HTML, CSS, node, React, git, MySQL

## LANGUAGES

C++, Python, MATLAB, JavaScript, Verilog, Swift

## ORGANIZATIONS/CLUBS

Mentored in Alliance for Minority Participation (AMP), Collegiate Science and Technology Entry Program (CSTEP), and Society of Hispanic Professional Engineers (SHPE)

Member of National Society of Black Engineers (NSBE)