Renee Aimba

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Education

Oregon State University **Sep. 2019 – June 2023**
Bachelor of Science in Electrical and Computer Engineering *Corvallis, Oregon*

Relevant Coursework

- Data Structures
- Electronics I
- Signals I,II
- Digital Logic Design/Laboratory
- Introduction to Computer Science I,II
- Electrical Fundamentals I,II,III
- Applied Differential Equations

Technical Skills

Languages: Python, C++/C, HTML/CSS
Developer Tools: Kicad, Instron Machine, Solidworks, LTSpice, Matlab, Bluehill Universal Software
Technologies/Frameworks: Linux, GitHub

Experience

Oregon State University **March 2021 – Present**
Tekbots Developer. *Corvallis, Oregon*

- Assisting students in submitting and printing their 3D prints and Laser cuts.
- Assisting students to decide on what components to buy for projects and carrying out transactions.
- Building a variety of kits for students to use in their Technical laboratories.
- Troubleshooting and fixing broken lab equipment and electrical components.

Oregon State University **September 2018 – December 2018, March 2021**
OPEnS lab Technical Assistant *Corvallis, Oregon*

- Assembled kits comprising of 22 sets of Barrel Jack Y Splitter Cables, Relay Loom Kit, Servo Loom Kit and Stepper Motor Loom Kit for students to use in classes during spring term
- Working in a hands-on technology-rich makerspace to produce next generation sensing technologies to measure electrical conductivity of rainwater.

Projects

TekMow | *TekBots* **August 2021 – September 2021**

- Developed a joystick controlled bot using Arduino to receive commands to cut grass, stop when it is tilted/overturned/goes out of range using an accelerometer and GPS.
- Implemented UART commands and a heartbeat timer to ensure there is constant checks for safety purposes.
- Created a Github branch where my colleagues and would be able to access each others code in order to ensure that each block we were working on individually could work with the other.

Cryogenic cooling of Electrical components | *Oregon State University* **January 2019 – September 2019**

- Reviewed and evaluated how force applied by low range (20kN) cells to high range cells(30kN) impacts four strain gauges, using an Instron
- Calculated how much mechanical stress impacts thermal resistance/computational performance using the Instron machine, with about calibration 9-12 readings.
- Conceptualized an optimized stress application procedure to maximize thermal performance using LN2 as a coolant while ensuring reliable protection of sensitive electronic components.

Hydrological Model of a "Smart Rock" | *OPEnS Lab* **September 2018 – December 2018**

- Aimed to create a low-cost device to monitor remote small and seasonal streams through citizen science. Positioning in streams will allow for more accurate data.
- Researched and suggested turbidity, pressure/temperature, and salinity sensors; "smart rock" improves accuracy measurements to up to 5 parts per million.
- Managed to deliver options to keep devices inexpensive by embedding a two for one option (pressure/temperature sensor) and improved capability of its sensor package.

Leadership / Extracurricular

- The Association of Computer Machinery Women's Chapter (2020) -Fundraising Coordinator..
- Society of Women Engineers (2019) -Engineering Ambassador.
- African Students Association (2019) - Vice President.