Bomi Garuba
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GitHub page: https://github.com/Bomigaruba/Bomi ||

WORK EXPRERIENCE / APPLIED PROJECTS

VEX Robotics EDR competition judge **December 2018 – February 2019**

VEX Robotics Competition, Longfields-Davidson Heights High School, Ottawa, ON

- Critiqued contestants on their robot designs based of aesthetics, ease of mobility, circuitry, component optimization, and functionality
- Identified defects that arose in a contestant's robot on the spot and aided in fixing issues
- Complied all evaluations from the team of judges and wrote a team-oriented report outlining the most impressive robot builds and identifying the overall winner of the competition

Mobile Phone Technician Intern **June 2013 – December 2013**

Raphigreat Institute of Technology / Electronics Repair Store, Abuja, Nigeria

- Worked as a trainee for the summer period and then part-time employee due to senior year high school commitments. Troubleshooted gadgets and smartphones for any issues such as cracked screens, distorted audio quality, or overheating issues
- Soldered off faulty components within devices and replaced them with newer versions as well as instructed the customer on how to avoid the same issue from occurring again
- Referred customer with devices that could not be fixed at the electronics store to any other repair stores close by

Server/Cashier **December 2018 – March 2019**
Cacao 70 Lansdowne, Ottawa, ON

- Served customers in a fast and accurate manner, that resulted in reduced waiting times and more satisfied customers
- Lead checking inventory and stocking deliveries on delivery days
- Trained co-workers to handle deliveries by showing them where things belong and giving clear and concise instructions

Raspberry Pi Game Console Emulator Project **December 2019 – Present**

Retro pie game emulator station project

- Successfully programmed a Raspberry Pi 3 SD card with RetroPie game libraries emulated from the Nintendo Entertainment System as part of a personal project
- Implementing memory management techniques to improve memory management within the game

Research project Team Leader **September 2018 – December 2018**

Internal Combustion Engine research group

- Collaborated with 3 other undergraduate engineering students from different streams to work on a project to redesign the internal combustion engine used in most commercial airplanes
- Complied all the research and facilitated a detailed and informative presentation on the team's findings to a select group of engineering professors interested in research about how the internal combustion engine could be made more fuel efficient and environment friendly

RELEVANT SKILLS, KNOWLEDGE, AND ACCOMPLISHMENTS

Technical Skills

- Diagnosed faulty electronic devices brought to the electronics retail/repair store for issues ranging from muffled audio systems and overheating issues to smartphones with cracked screens and soldered off the damaged components then replacing with newer versions
- Rendered a 3D lock key STL document for an introductory engineering course (ECOR 1010) at Carleton University using AutoCAD
- Generated a retro video game console emulator machine on a Raspberry Pi 3 module to play ancient Nintendo Ds video games by programming ROMs onto the raspberry pi configuration setup file
- Performed signal analysis on an operational amplifier circuit with a waveform function generator and a pair of oscilloscope signal probes
- Developed a Tic-Tac-Toe computer game utilizing BlueJ, an object- oriented programming software app, in an efficient manner as part of a personal project
- Performed Front-end and Back-end development on a website I curated using HTML5, JavaScript, CSS, and PHP as web tools then hosted it online through FileZilla
- Examined VEX robotics competition contestants' robot designs if they fit certain criteria and if the contestant had gone the extra mile to achieve excellence in a fair playing field
- Designed a digital alarm clock simulation using Verilog as the register-transfer level coding language and a Nexys 4 DDR Artix-7 FPGA board as the digital circuit platform
- Debugged code on C++/C/Java, which resulted in better working programs and better software design

EDUCATION

Ontario Secondary School Diploma **September 2016 – June 2017**

Columbia International College (University Prep.), Hamilton, ON

Bachelor of Engineering, Electrical **September 2017 - Present**

Carleton University, Ottawa, ON

- 3rd Year Undergraduate,
- Expected graduation May 2022

- 2017 Entrance Scholarship $4000

AVAILABILITY

Available for any 4, 8, 12, or 16-month work terms beginning May 2020