

MERCY WANGUI MUIRURI

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Education

Northwestern University

Bachelor of Arts in Computer Science

Sep. 2023 – Current

Evanston, IL

Relevant Coursework

Outlines all first-year coursework in line to complete

Computer Science: Functional and Object-oriented programming using Lisp; Racket, Python Object-oriented programming, Imperative programming using C and C++

Mathematics: Single-Variable Differential Calculus, Single-Variable Integral Calculus, Multi-Variable Differential Calculus

Experience

Northwestern University Formula Racing Team

September 2023– Current

Software and Hardware Developer

Evanston, IL

- Collaborated with upperclassmen in senior-level coursework to develop the intricate software components of a Formula One Racing car from scratch in preparation for the annual collegiate Formula SAE race.
- Worked in Data Acquisition sub-team where I spearheaded remodelling and prototyping of the suspension system of the engine.
- Integrated Arduino and C++ to develop a suspension tracking system that monitors variation in compression in engine regulation.

Jomo Kenyatta University of Agriculture and Technology

May 2022 – July 2022

Inspire In STEM Program

Nairobi, Kenya

- Collaborated with a unique diverse team members to construct different projects using Python.
- Utilized version control tools like Git to coordinate improvements and assign duties with other team members.
- Acquired expertise with Dabble, a program that turns smartphones into a virtual I/O device for manipulating hardware using Arduino and ESP 32 microcontroller development.

Projects

Suspension Board Software System | C++, Arduino |Evanston,IL

September 2023- Current

- Currently developing a system with an ADC (analog to digital converter) to graph changes in suspension versus voltage on a web interface.
- In line to develop PCB boards for the suspension tracking system necessary for the suspension team.
- System to be utilized for engine testing and suspension control monitoring.

Website Portfolio | HTML, CSS, Javascript | Nairobi, Kenya

May 2022 - July 2022

- Gained knowledge and skills in web development and front-end structures using HTML, CSS and JavaScript to curate and re-model portfolios.
- Employed graphical user interface for web design, layout and site formatting.
- Utilized front-end cloud systems like Netlify in website deployment.

Technical Skills

Languages: Python, HTML/CSS, JavaScript, Racket, C++

Developer Tools: VS Code, CodeBlocks, Dabble

Relevant Affiliations

- * Northwestern University Formula Racing FSAE Organization
- * Responsible AI Students Organization Northwestern Organization
- * Institute of Electrical and Electronics Engineers: Northwestern University Chapter
- * National Society of Black Engineers: Northwestern University Chapter

Leadership / Extracurricular

EducationUSA Scholars Program

June 2022 – July 2023

Senior Pre-collegiate Mentor

Nairobi, Kenya

- * Coached students in college-level writing and project management as part of a selective program for top performers.
- * By working with an array of distinctive personalities, I gained insight and interpersonal skills such as critical thinking and conflict resolution.
- * Gained leadership experience by fostering a positive atmosphere for idea generation by embracing feedback.