

Husaina Raji

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EDUCATION

UNIVERSITY OF OTTAWA

Bachelor of Applied Science, Biomedical Mechanical Engineering *Expected graduation, June 2026*

Relevant Coursework: Engineering Mechanics, Thermodynamics, Fluid Mechanics, Control Systems, Human Anatomy and Physiology II, Bioethics, Engineering Design, Biomechanics, Engineering Materials and Biomaterials, Linear Algebra and Differential Equations, Multivariable Calculus.

TECHNICAL SKILLS

Solidworks, MATLAB, 3D Printing, Laser Cutting, Milling, C (Programming Language), Microsoft Office Suite, Canva.

PROFESSIONAL EXPERIENCE

Operations Officer

Health Canada, Jan 2024 – Dec 2024

- Conducted assessment and coding of medical device problems and incident reports using IMDRF codes and guidelines.
- Participated in team meetings and working groups to address operational, scientific, or regulatory issues.
- Communicated effectively with internal and external stakeholders regarding medical device problems and incident reports.
- Trained new students, providing guidance on operational procedures and best practices in medical device reporting and assessment.
- Served as a member of the social committee, helping plan and organize events for the bureau to foster team cohesion and improve workplace culture

MATLAB Student Ambassador

MathWorks, Oct 2023- Present

- Represent MathWorks as a MATLAB Student Ambassador on campus, enhancing awareness of MATLAB and Simulink among students and faculty.
- Plan and host engaging events to demonstrate MATLAB and Simulink, utilizing provided resources for software demos and hardware tools.
- Leverage social media platforms like Instagram where I engage with around 200 followers to share articles and promote MathWorks products.

Assistant Event Coordinator

University of Ottawa, May 2023 - Present

- Collaborated with a diverse team to create and execute innovative events that enrich the student experience on the university campus.
- Improved student engagement by 35% in summer 2023 through well-planned events and activities.
- Spearheaded initiatives focused on promoting health and wellness and enhancing campus life.

- Delivered exceptional customer service, ensuring students' needs were met, and provided guidance during events and activities.
- Cultivated strong partnerships with faculties, departments, and external organizations to expand networking opportunities.

PROJECTS

Small Scaled Robot Arm

Ottawa, Ontario, Sept 2023 - Dec 2023

- Led a team of 2 to develop an Arduino-powered robot arm controlled through hand gestures.
- Designed a 3D-printed arm and glove for precise human motion mimicry, incorporating 3D CAD models.
- Integrated an accelerometer, flex and temperature sensors for accurate gesture interpretation.
- Demonstrated cost-effective automation with arduino programming, overcoming 3D printing and circuitry challenges.
- Completed functional bluetooth communication between the glove and arm.

Hydroponic Raft Cleaner Design Project

Ottawa, Ontario, Sept 2022 - Dec 2022

- Collaborated with a team of 5 to design and develop an automated system for cleaning algae off hydroponic rafts using design thinking processes.
- Conducted thorough research on cleaning methods and materials using technical and user benchmarking techniques to inform design decisions and optimize system performance.
- Utilized project management tools like Gantt charts track progress and ensure timely milestones completion.
- Created technical reports, design specifications, test plans, and a user manual for our design.
- Presented findings and recommendations effectively to clients and peers, showcasing strong communication skills.

LEADERSHIP AND VOLUNTEER EXPERIENCE

- VP Development, Women in Science and Engineering (WISE) University of Ottawa Chapter
- VP Outreach, National Society of Black Engineers (NSBE), University of Ottawa Chapter

INTERESTS AND EXTRACURRICULAR ACTIVITIES

- Interests: Basketball; music.
- Languages: English (Fluent); French (beginner); Yoruba (native); Akan Fante (native).