

Richard Mukam Jr

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EDUCATION

University of Maryland, College Park

Bachelors in Science, Computer Science | College Park Scholars | Hack4Impact-UMD

College Park, MD

May 2026

COURSEWORK

Object-Oriented Programming I, Calculus I, Designing Fair Systems, AP Calculus AB, AP Computer Science A, AP Computer Science Principles, Introduction to Information Technology

SKILLS

Programming Languages: Intermediate in Java, Familiar with HTML, CSS, Elementary in JavaScript

Tools: Git, Bootstrap, Node.js

EXPERIENCE

Hack4Impact-UMD

Bootcamp Participant

College Park, MD

Sep 2022 - Present

- Studied the core technologies of front-end web development in HTML, CSS, and Javascript, as well as pertinent technologies in API's, MongoDB, Express.js, React, and Node.js in a nine-week long curriculum.
- Undertook nine mini-projects to enhance knowledge of front-end web development technologies and build reliable and efficient websites for non-profit organizations.
- Shadowed a team of engineers and UX/UI designers to gain insight in the roles and operations of a project team.

Air Tigers Robotics

Lead Programmer

Lanham, MD

May 2021 - May 2022

- Collaborated alongside Air Tigers' mechanical, electrical, design, and programming teams for three months to implement both teleoperation and autonomous robot code using Java and WPI Robotics libraries and tools.
- Integrated aspects of computer vision using a Limelight Vision Camera to the FIRST Robotics Competition robot.
- Contributed to existing code that allows for a PiBot, a customizable Raspberry Pi-powered robot, to track a thin black line on a smooth surface and follow its path using a QTI Sensor, Secure Shell, and Python.
- Analyzed a loosely-configured TurtleBot3 Burger, a ROS-based robot, and its LiDAR sensor for three months using Arduino IDE, Secure Shell, and Ubuntu Server.

PROJECTS

[YouTube Clone](#) | Tech: HTML, CSS, Bootstrap, JavaScript

Aug 2022

- Redesigned a mock web page of the YouTube homepage using HTML, CSS, and Bootstrap.
- Experimented with the interactivity of the mock page and responsive web design using Javascript and Bootstrap.

[Air Tigers FIRST Robotics \(FRC\) Competition Robot](#) | Tech: Java, WPILib

March 2022

- Developed robot code, functional in both teleoperation and autonomous control, that allows for a robot to retrieve a game piece using an intake mechanism, feed the game piece toward the shooter using a feeder mechanism, and fire said piece using a shooter mechanism toward two stationary goals of varying height.

[COVID-19 Vaccine Locator](#) | Tech: MIT App Inventor

May 2021

- Developed an application using MIT App Inventor amidst the COVID-19 pandemic that provides users with the ability to find the nearest COVID-19 vaccine location in their vicinity.

VOLUNTEER

Air Tigers Robotics

Mentor

Lanham, MD

May 2022 - Present

- Advise the Air Tigers Robotics' programming team on errors within robot code and future implementation of notable features.

INTERESTS

- Front-End Development, Back-End Development, Machine Learning, Artificial Intelligence, Robotics

ORGANIZATIONS

- Hack4Impact-UMD, ColorStack, Rotary Interact, Institute of Electrical and Electronics Engineers