MOYINOLUWA ADELOWO

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EDUCATION

Alabama A&M University, Expected May 2027 — Normal, AL
Bachelor of Science, **Mechanical Engineering**; Minor in **Computer Science**; **4.0**/4.0 GPA
Relevant Coursework: Computer-Aided Design, Engineering Programming & Analysis, Material Science, Statics

TechWise by TalentSprint, sponsored by Google, Expected September 2025
Software Engineering. Selected for a highly competitive Google-sponsored 18-month software engineering program.

AltSchool Africa — Ibadan, Nigeria
Diploma in **Software Engineering**; Concentration in **Backend Engineering**; **3.7**/4.0 GPA — April 2022 – June 2023
Relevant Coursework: Intro to Web Development, Backend Engineering, Restful API Development. Technical Writing

TECHNICAL SKILLS AND SOFTWARE PROFICIENCIES

SolidWorks • Solid Edge • MATLAB • Simulink (in progress) • 3D-Printing • Python • JavaScript • TypeScript • Git & GitHub • React.js • Next.js • Node.js • MongoDB • PostgreSQL • Microsoft Office • Arduino Programming

WORK EXPERIENCE

Summer 2024 — **UCI Robot Ecology Lab** — Irvine, CA
Undergraduate Researcher.

- Designed and 3D-printed adjustable and fixed ramps using SolidWorks, AnkerMake, and Prusa 3D Printer, facilitating collaborative transportation between the TurtleBot and GritsBot.
- Developed MATLAB algorithms for collaborative mobility deployed on real robotic hardware in the Robotarium.
- Assembled the TurtleBot3 Waffle Pi and integrated it with the Vicon motion capture system, utilizing ROS2, ROS-Vicon bridge, python, and C++ to build packages, custom nodes, and publishers for seamless system integration.
- Presented research on collaborative robotic mobility at a symposium showcasing the project's innovations, findings, and next steps.

Spring 2024 — **NSF-INSPIRE Research** — Normal, AL
Undergraduate Researcher.

- Collaborated with a team of five to study the formation of garbage patches and co-authored a report, presenting findings to the academic community.
- Analyzed NOAA data on oceanic garbage patches using dynamic mode decomposition, identifying patterns and behaviors in marine debris accumulation.
- Implemented MATLAB algorithms for processing and visualizing complex oceanographic data, enhancing the interpretation of tidal mechanisms.

PROJECT EXPERIENCE

March 2024 – May 2024 — **Engineering Design and Simulation** — Normal, AL

- Designed, assembled, and aminated a four-bar link mechanism using Solid Edge.
- Generated and displayed source-generating sine wave using Simulink and MATLAB.
- Simulated a mass spring damper system in the time domain using Simulink and MATLAB, improving understanding of dynamic systems.

April 2024 — **AAMU-Deloitte Cyber Cup Competition** — Normal, AL

- Gained hands-on experience with real-world cyber-attack scenarios, improving defensive and offensive cybersecurity skills.
- Ranked in the top five teams by using Python and Kali Linux to decrypt files, decode text, and perform various operations, showcasing strong problem-solving abilities.

September 2023 – Present — **NASA Human Rover Exploration Challenge and Formula SAE** — Normal, AL

- Contributed with a team of three to write detailed reports on parts of the Rover.
- Collaborated with other team members to design a task tool using SolidWorks to perform various tasks during the Rover Challenge.
- Implemented turning, facing, chamfering, drilling, and threading on a Lathe machine to build screws and other designed parts.

LEADERSHIP, ACTIVITIES AND HONORS

International Chair, Alabama A&M University (AAMU) National Society of Black Engineers Chapter • AAMU Special Projects Laboratory Member • AAMU Vex Robotics Member • ASME Member • GDSC Member • Dean's List; 2024 • AAMU Presidential Scholarship Award • AAMU Honors Program • TechWise Fellow • ColorStack Member • Codepath Student • Thurgood Marshall College Fund Scholar