

Isaiah Harris

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SUMMARY

Computer Engineering student with experience in embedded systems, manufacturing automation, quality engineering, and sensor-based control systems. Proven track record developing Raspberry Pi and Arduino solutions for industrial research applications, validating automated inspection equipment, and supporting data-driven process improvements in manufacturing environments. Seeking opportunities in embedded systems, robotics, controls, automation, and hardware-software integration.

EDUCATION

Tuskegee University

Bachelor of Science in Computer Engineering; 3.4 GPA

Tuskegee, AL

May 2028

EXPERIENCE

Aptar CSP Technologies

Quality Engineering Intern

Auburn, AL

May 2026 - Present

- Executed validation testing for AIMEE automated weight inspection systems, performing 50+ test cycles on multiple tray configurations and supporting 14-day ingress testing to assess equipment performance and process reliability.
- Converted SAP-based quality documentation into QMNeptune, digitizing 5 manufacturing and quality workflows to improve process standardization and operational efficiency.
- Supported implementation of automated weight inspection processes capable of simultaneously inspecting up to 40 units per cycle, reducing reliance on manual one-by-one verification methods.

Nucor Education and Research Center (NERC)

Project Lead Researcher

Tuskegee, AL

September 2024 - May 2026

- Designed and implemented a Raspberry Pi and Arduino based controls architecture for an automated steel cooling chamber, integrating environmental sensors, relay controlled EC fans, and 0–10V industrial valve actuation for thermal process control
- Developed sensor acquisition and control workflows for temperature, humidity, airflow, and mist flow regulation to support future closed-loop automation and real-time monitoring.
- Contributed to chamber redesign through CAD, 3D printing, airflow optimization, and experimental validation, helping achieve a cooling rate from 1600°F to 1000°F in approximately 6 seconds.

Thurgood Marshall College Fund x Chevron Energy Innovation Summit

Participant | Scholarship Awardee

Tampa, FL

July 2025 - August 2025

- Selected for a business case competition, applying design thinking and business modeling to develop innovative solutions for energy sector challenges while mentored by Chevron executives.

Summer Undergraduate Research Fellowship (SURF) Purdue University

Research Intern

West Lafayette, IN

June 2025 - August 2025

- Engineered a real-time thermal mapping and data visualization system using Python on Raspberry Pi 4B with an MLX90640 IR sensor to enable predictive maintenance for industrial oven applications
- Selected to present real-time thermal mapping research at the 2026 Emerging Researchers National (ERN) Conference in STEM; engaged with industry leaders and researchers to discuss industrial applications

LEADERSHIP

Tuskegee University Robotics Club (TURC)

President | Robotics Volunteer – LEGO STEM Outreach (Tuskegee Public School)

Tuskegee, AL

January 2026 – Present

- Lead club operations, coordinate executive board meetings, oversee project teams, and organize technical workshops for members.

Mathematics Club

Vice President

Tuskegee, AL

August 2026 – Present

Society of Manufacturing Engineers (SME)

Secretary | Former Social Media Chair (E-Board)

Tuskegee, AL

August 2024 - Present

- Created engaging content across social media platforms to increase member engagement.

Toastmasters

General Evaluator | Member

Tuskegee, AL

September 2025 - Present

- Developed public speaking, meeting facilitation, and leadership communication skills through structured speeches, evaluations, and Toastmasters leadership activities while serving as General Evaluator.

HONORS & AWARDS

Honors: University Merit Scholar • Cargill Thrive Scholar • NACME Scholar • Alpha Kappa Mu National Honor Society • American Association for the Advancement of Science (AAAS)

SKILLS

Certifications: Certified Scrum Product Owner (CSPO®), Scrum Alliance • AWS AI Practitioner Challenge, Udacity × Amazon Web Services

Training: Responsible Conduct of Research (RCR) Training • Introduction to Parametric Feature-Based CAD

Technical Skills: Python • C++ • Embedded Systems (Raspberry Pi, Arduino) • MySQL • Circuit Design & Analysis • PCB Design (KiCad) • CAD • Soldering • Technical Writing • Microsoft Office