

Twyla S. Nunes-Ueno

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Education

Georgia Institute of Technology | Atlanta, GA

B.S. in Electrical Engineering, 3.75 GPA | Circuit Technology and Power concentrations

- Minor: Artificial Intelligence and Machine Learning

August 2025 – Present

Expected Graduation May 2029

Skills

Programming: Java, Python, C, C#, JavaScript, Node.js, CSS, HTML, Arduino IDE

Platforms: Google Developer Platform, Google Tag Analytics, Firebase, Excel

Hardware: Raspberry Pi, Arduino, soldering, multimeter testing

CAD & Engineering Software: Fusion360, Altium, SolidWorks, GitHub, Wix

Experience

The Acceptance Project | Philadelphia, PA

March 2025 – Present

Technical Lead

Small startup-style college consulting organization focused on admissions assistance for inner-city youth

- Designed a web platform to support scheduling and content delivery for college counseling services for 30+ employees and clients.
- Built customized online application trackers for 5 students, with individualized criteria and data.
- Coordinated project requirements and system improvements with cross-functional stakeholders.

The Wistar Institute | Philadelphia, PA

June 2024 – August 2024

Fellow / Murphy Laboratory

Cancer research laboratory focused on personalized treatments.

- Executed 20+ laboratory experiments following strict safety and procedural protocols.
- Documented experimental processes and verified results to ensure data accuracy and research quality standards.

Invisible Sentinel | Philadelphia, PA

June 2023 – August 2023

Research & Design Intern

Biotechnology firm specializing in food safety testing products.

- Contributed to the development and optimization of PCR-based diagnostic assays to detect heat-resistant mold contamination in commercial beverage products for commercial partners.
- Documented experimental protocols, and performance metrics in compliance with structured quality and traceability standards.

EasterSeals Disability & Community Services | Philadelphia, PA

September 2022 – June 2023

Engineering Volunteer

Nonprofit dedicated to providing accessibility services and devices to physically impaired adults and children.

- Designed, assembled, inspected and tested 50+ custom electronic devices, ensuring safety compliance and operational reliability.
- Performed preventive maintenance and troubleshooting on electronic hardware using schematics and multimeters.

Selected Projects

Cereal Sorter

AI-driven embedded sorting system

Spring 2026

- Designed automated sorting system using Arduino, servo actuation, and computer vision classification.
- Trained machine learning image classifier and integrated camera input with microcontroller control logic.
- Designed and fabricated mechanical housing in Fusion360 and conducted iterative testing to improve sorting reliability.

Autonomous Robotics Project

Fall 2025

Two-person team programming robot to navigate mazes, perform autonomous delivery, and simulate tasks like parallel parking.

- Developed modular control software (1000+ lines of Python) to support autonomous navigation systems operating under real-world physical and environmental constraints.
- Conducted 100+ test runs and analyzed reliability metrics to improve system functionality and reduce operational error rates.

Fall Friend

Spring 2023

Embedded fall detection device & high school hackathon winner

- Designed sensor-based fall detection system using ESP32 microcontroller and accelerometer.
- Programmed real-time motion detection algorithms to trigger SMS emergency alerts.
- Assembled circuit components and integrated hardware into functional device housing.