

Najma Thomas-Akpanoko

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EDUCATION

- **Vanderbilt University** Expected Graduation: May 2027
Ph.D. Student in Civil Engineering Nashville, TN
- **The Georgia Institute of Technology** August 2021
B.S. in Mechanical Engineering, Graduated with Honors Atlanta, GA
- **Spelman College** May 2019
B.S. in Physics, Magna Cum Laude Graduate Atlanta, GA

EXPERIENCE

- **Civil and Infrastructure Systems Engineering Department, Vanderbilt University** [🌐] August 2023 - Present
Graduate Research Assistant Nashville, TN, USA
 - Utilizing wearable technologies to monitor physiological responses and predict heat stress in construction workers, using electrodermal sensors, heart rate monitors, and temperature sensors.
 - Developing predictive models using Python, MATLAB, and machine learning algorithms to assess heat stress and inform infrastructure design and policy improvements for vulnerable communities.
- **Supply Network Operations, Feminine Care, Procter and Gamble (P&G)** [🌐] August 2021 - July 2023
Supply Chain Manager, Always Liners - Prior Role: Process Engineer and Conversion Analyst Cincinnati, OH, USA
 - Led supply chain operations for Always Liners across North America, from manufacturing to distribution. Implemented strategies to enhance efficiency, reduce costs, and improve delivery timelines.
 - Orchestrated the reduction of non-performing inventory by \$ 4.68 million through rigorous plant inventory reviews, the creation of a new category inventory run-out strategy approved by leadership, as well as the creation of system automations within the digital inventory management tool.
- **The Johns Hopkins University Applied Physics Laboratory Space Exploration Sector** [🌐] Summer 2021
Aerospace Systems Engineering Intern Laurel, MD, USA
 - Contributed to Dragonfly, a dual-quadcopter for exploring Saturn's moon Titan, by creating a MATLAB-based weighted array script to distinguish wet from dry surfaces using image data.
 - Conducted edge detection experiments on rock-like materials with varying moisture levels and light wavelengths, enhancing Dragonfly's mass spectrometer for more accurate surface material analysis.
- **Agility Robotics** [🌐] Spring 2021
Primary Researcher – Black Deep Tech Summit Student Startup Research Project Remote
 - Developed CAD models to reduce foot sole degradation of a humanoid robot by analyzing ankle control, passive compliance, material selection, and rubber sole performance for durability and stability.
- **Baja SAE Off-Road Competition, Georgia Institute of Technology** [🌐] August 2019 - March 2020
Drivetrain Engineer Atlanta, GA, USA
 - Co-led the design and development of a continuously variable transmission tension test-bed for the Baja SAE Off-Road Competition, using CAD modeling to analyze belt tension dynamics across gear ratios.

COMMUNITY SERVICE EXPERIENCE

- **The Climate Leaders Academy, YEAH Network** May 2023 – Present
Sustainable Development Coordinator [🌐]
 - Selected for the Climate Leaders Academy under a \$2.5M NSF grant, co-leading a community garden and a year-long climate change program for high school students. Worked with stakeholders to develop urban greenspaces and presented climate mitigation strategies at COP 28 in Dubai, UAE.
- **The National Society of Black Engineers (NSBE)** May 2020 – May 2021
The National Pre-College Initiative (PCI) Chair [🌐]
 - Led the National Pre-Collegiate Initiative (PCI), implementing STEM education programs for over 3,000 K-12 students internationally and managing a \$500,000 budget to support initiatives like the GE Healthcare Product Development Challenge and Microsoft Curriculum Partnership.

HONORS AND AWARDS

- **Dwight D. Eisenhower Transportation Fellow - U.S. Department of Transportation** November 2024 - Present
- **Bill Anderson Fund (BAF) Fellow** September 2024 - Present
- **LEED Green Associate Certification** May 2024 - Present
- **Provost's Graduate Fellowship - Vanderbilt University** August 2023 - Present