

Anderson Gao

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Education

Georgia Institute of Technology | Atlanta, GA

May 2028

Bachelor of Science in Electrical Engineering, GPA 3.87

- Minor in Physics, Eta Kappa Nu, AGU, IEEE

Work Experience

MathWorks | Natick, MA

(Incoming) Sep 2026 – Dec 2026

Hardware Test Engineering Intern

Software development company known for MATLAB and Simulink.

- The Hardware Test Infrastructure team develops and maintains the software, tools, and infrastructure used to test MathWorks products with external hardware in the loop.

Procter & Gamble (P&G) | Cincinnati, OH

May 2026 – Aug 2026

Controls Engineering Intern

Family Care, Converting Engineering

- Commissioned PLC control logic and fault handling on high-speed Bounty/Charmin production lines.
- Led a \$63,000 drives upgrade, setting a new equipment standard that removes fleet-wide obsolescence risk.
- Drove the engineering and design for a new \$20,000 assembly line controls panel, including upgraded drives, PLC, and ethernet switch.
- Proved the value of inclinometers on line machinery through data analysis, cutting line stoppages by 30% with new warning system for operators.
- Built a data collection strategy to support performance analysis and future AI/ML work.
- Improved operator safety through PLC logic changes and proximity sensors, validated with two safety reviews.

Low Frequency Radio Lab | Atlanta, GA

Jul 2025 – Present

Researcher

Lab investigating ELF/VLF radio to probe the ionosphere, analyze lightning signals, and design antenna receivers.

- Developed a two-branch CNN classifying intra-cloud vs. cloud-to-ground at 95.79% accuracy from VLF sferics detected up to ~6400 km away.
- Built the data processing pipeline behind 3,175,790 test events, benchmarked against reference classifications from the National Lightning Detection Network.
- Extended classification beyond the range of conventional LF networks, reaching ocean basins and high latitude regions previously without coverage.
- Authoring graduate-level journal paper on the novel methodologies from this project.

Mechatronics and Motivation | Atlanta, GA

Aug 2025 – Dec 2025

Haptic Hardware Engineer

Design team focusing on developing wearable haptics for people with learning differences.

- Designed haptic ring that achieved 30% increase in math performance for students with autism.
- Implemented firmware onto devkit board that activates an actuator to induce vibrating sensation via Bluetooth.
- Prototype two-layer flexible PCB in Altium that integrates devkit functions to optimize ergonomics.
- Create outer casing in CAD to hold all electronic components.

Texavie | Vancouver, Canada

Aug 2023 – Sep 2023

Electrical Engineering Intern

Wearable devices startup focusing on smart apparel that gathers movement data for health and fitness.

- Designed single-layer flexible PCB for a smart-glove prototype with real-time feedback to digital dashboard.
- Created schematic capture in KiCAD to submit for design review with managers.
- Evaluated market demand for wearable technology and authored 5-page technical report on common electronic faults.

Technical Skills

Programming: Python, Java, MATLAB, C, C++, RISC-V Assembly, VHDL, TensorFlow, NumPy, Scikit-learn, OpenCV

Platforms: Linux Shell (Bash), Git, GitHub

Software: Intel Quartus, Altium, KiCAD, NI Multisim (SPICE), VS Code, SOLIDWORKS, AutoCAD, Revit

Hardware: FPGA, Raspberry Pi, Arduino, ESP32, STM32, nRF Devkit

Tools: Oscilloscope, Logic Analyzer, Function Generator, DMM, Soldering, Breadboard, 3D Printer

Skills: Schematics, PCB design, Analog/Digital Circuitry, Embedded Systems, I2C/SPI/UART, DSP, Machine Learning, LLM, IoT