Anderson Gao

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Education

Georgia Institute of Technology | Atlanta, GA *August 2024 – Present*
B.S. in Electrical Engineering, GPA 4.00 *Expected Graduation, May 2028*
Relevant Coursework: Signal Processing, AC/DC Circuit Analysis, Digital System Design, Object-Oriented Programming

Skills

Programming: Python, Bash, Java, C/C++, JavaScript, HTML/CSS, YAML, MATLAB
Platforms: Linux Shell, VS Code
Hardware: Raspberry Pi, Arduino UNO, oscilloscope, logic analyzer
Software: NI Multisim, SOLIDWORKS, GitHub, Altium, ANSYS, Microsoft Office
Professional Organization: Institute of Electrical and Electronics Engineers (IEEE)
Communication: Design proposals, technical reports, instruction manuals, presentations (1,000 attendees)
Languages: English (fluent), Mandarin Chinese (fluent), Shanghainese (fluent), French (intermediate)

Experience

Low Frequency Radio Lab | Atlanta, GA *July 2025 – Present*
Research Assistant
Research lab investigating ELF/VLF radio to probe the ionosphere, analyze lightning signals, and design antenna receivers.

- Developing ML classification model with >95% accuracy that parses through electromagnetic waveform data from lightning strikes and classifies the events as Intracloud or Cloud-to-Ground lightning.
- Executing data-processing pipeline that gathers lightning data from a network containing 100,000,000+ annual strikes.
- Authoring graduate-level research paper using novel methodologies obtained from this project to advance atmospheric science research.
- Advancing atmospheric science research.

Mechatronics and Motivation | Atlanta, GA *Aug 2025 – Present*
Vertically Integrated Projects (VIP)
Design team focusing on developing cutting-edge wearable haptics for people with mobility and learning differences.

- Prototyping flexible PCBs for use in future medical aids.
- Conducting preliminary research in neuroscience to identify common faults with medical devices and create a novel solution in wearable mechatronics.

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 flexible PCBs for a smart-glove prototype.
- Created circuit schematic diagrams to share in department meetings for revision.

Projects

Machine Learning Formula 1 Prediction Model *June 2025 – July 2025*
Personal Project
Advanced machine learning model that predicts race finishing order for every Formula 1 Grand Prix in the 2025 season.

- Created an ML model using Python that leverages external APIs to compile past race data and run prediction algorithm.
- Implemented weighted features: Track Temp, Championship Points, Weather Data, etc.
- Achieved 80% accuracy when back-tested against historical data.

Leadership

World Cube Association *Jan 2023 – Present*
Competition Organizer

- Spearheading logistics for local Rubik's Cube competitions with over 400+ attendees.
- Generated $5,000+ so far in revenue from event registration fees.
- Pioneered a novel delegation system allowing volunteer roles to be equitably allocated to participants on competition day.