# Anderson Gao

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## Education

**Georgia Institute of Technology | Atlanta, GA**                                              *May 2028*
Bachelor of Science in Electrical Engineering, **GPA 4.00**

## Technical Skills

**Programming:** Python, Java, MATLAB, C/C++, Bash, JavaScript, HTML/CSS, YAML
**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)
**Relevant Coursework:** Signal Processing, AC/DC Circuit Analysis, Digital System Design, Object-Oriented Programming

## Work Experience

**Low Frequency Radio Lab | Atlanta, GA**                                              *Jul 2025 – Present*
*Research Assistant*
*Research lab investigating ELF/VLF radio to probe the ionosphere, analyze lightning signals, and design antenna receivers.*
- Develop 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.
- Execute data-processing pipeline that gathers lightning data from a network containing 100,000,000+ annual strikes.
- Author graduate-level research paper using novel methodologies obtained from this project to advance atmospheric science research.
- Advance atmospheric science research by increasing understanding of global lightning patterns and improving safety.

**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.*
- Prototype flexible PCBs for use in future medical aids.
- Develop and implement firmware onto electronics.
- Conduct 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.

## Technical Projects

**Machine Learning Formula 1 Prediction Model**                                              *Jun 2025 – Jul 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 Temperature, Championship Points, Weather Data, etc.
- Achieved 80% accuracy when back-tested against historical data.

## Leadership

**Georgia Tech Tour Guides**                                              *Jan 2025 – Present*
*Campus Tour Guide*
- Lead engaging campus tours for prospective students and families, tailoring route and narratives to audience interests while clearly explaining academics, research, housing, and student life.
- Coordinate tour logistics and high-volume Q&A (check-in, timing, accessibility).
- Collaborate with Admissions and fellow guides to ensure a polished, on-schedule visitor experience.