

Aiden N. Erard

314-885-4177 • aerard3@gatech.edu • U.S. Citizen • www.linkedin.com/in/aidenerard

Education

Georgia Institute of Technology | Atlanta, GA

Bachelor of Science in Computer Engineering

Minor in Computer Science, Concentration in Intelligence

Expected Graduation Date: May 2028

4.0 GPA

Skills

Programming: Python, Java, JavaScript, ROS, C++, HTML, CSS

Hardware: Raspberry Pi, Magnetometers, Pixhawk flight controller, LiDAR/RGB-D sensors

Software: SLAM, Open3D, OpenCV, SolidWorks, GitHub

Languages: English (native), Spanish (novice)

Relevant Coursework: Linear Algebra, Intro to Object Oriented programming, Intro to Computing

Experience

FluxSpace | CREATE-X, Startup Exchange, Inventure Prize

September 2025 - Present

Co-Founder

Developing magnetic-sensing drone technology to improve the safety and speed of construction/post-disaster structural inspection.

- Built Raspberry Pi magnetometer pipeline with NumPy/Pandas to scan 2x2 ft grids and generate 2D/3D heatmaps via Open3D.
- Integrating autonomy and mapping groundwork through use of SLAM, RGB-D/LiDAR sensor, and Pixhawk flight-controller.
- Secured \$5,500 in funding through CREATE-X, accepted into Klaus Fusen World Program to compete for \$150,000 in funding.
- Applying to startup incubators including Y-Combinator and a16z; ranked Top 10% of 20,000+ in YC Winter and Spring '26 batches.

Undergraduate Research | Bipedal Navigation Over Challenging Terrain - LiDAR Lab

January 2026 – Present

Georgia Institute of Technology | Atlanta, Georgia

- Researching traversability estimations for bipedal robot navigation using STATE-NAV planner and elevation mapping pipeline.
- Migrating navigation stack from ROS to ROS2, containerizing development environments in 2 open-source repos with Docker.
- Analyzing simulation/real-world terrain data to evaluate stability limits and path-planning behavior.

Invention Studio | Provisional Prototyping Instructor

January 2026 – Present

Georgia Institute of Technology | Atlanta, Georgia

- Volunteer 3 hrs/week mentoring 50+ students weekly on prototyping and troubleshooting for class and personal projects.
- Certified on 25+ tools/machines including 3D printers, laser cutters, water jets in largest student run makerspace in the US.
- Assess and mitigate risk across high-traffic equipment to maintain a safe environment for 500+ weekly students.

RoboJackets RoboNav | Drone Team Member

August 2025 – Present

Georgia Institute of Technology | Atlanta, Georgia

- Developed autonomy software in ROS, Python and C++ through 8-week training program, applying concepts to drone navigation.
- Designed iterative drone frame models in SolidWorks as part of hardware development within a 100+ member team.

Projects

Tempr | Top 2 at Georgia Tech Hacklytics Hackathon

February 2026

AI-powered React Native app that generates personalized Spotify queues from mood, images, calendar events, and past Spotify data.

- Integrated 5 external APIs (Spotify, Gemini, YouTube, Supabase, Apple Calendar) within a 36-hour hackathon.
- Built a vector search engine that converts mood or image input into personalized Spotify queues in under 15 seconds.
- Collaborated across a 4-person team to build and ship a full-stack mobile app end-to-end, outcompeting 230+ teams.

GridGuard | Top 5 at Georgia Tech Energy Hackathon

January 2026

Load-shedding app targeted towards areas with unreliable electricity that lets users manage power usage from their mobile device.

- Built a Raspberry Pi/Arduino sensor pipeline with voltage sensing to stream live power data into dashboard via Supabase.
- Developed a navigable UI using React and Tailwind that displayed blackout risk and allowed users to add/remove loads.
- Computed real-time blackout risk by combining WeatherAPI forecasts with live sensor data to trigger relay switching.