

ALEX HA

ha.alex.027@gmail.com | (770)-714-5106 | Marietta, GA



EDUCATION

Kennesaw State University | *BS in Mechanical Engineering*

GPA: 3.3/4.0 | Expected Class of 2029

Relevant Coursework | *Engineering Design Graphics*

SKILLS

Technical Skills

- Solidworks (CSWA)
- Fusion360
- Onshape
- Siemens StarCCM (CFD)
- 3D Modeling & manufacturing
- CNC milling & Lathing

PROJECTS & EXPERIENCE

Kennesaw Motorsports (Formula SAE)

July 2025 - Present

Aerodynamics & Driver Interface Subgroup

- **Aerodynamic Whisker Study**
 - Designed and executed a DOE on airfoil performance across chord, thickness, camber, and angles of attack, including multi-element configurations; validated results in **Simcenter STAR-CCM** via residual/ y^+ and mesh-independence checks.
- **EV Instrumentation Dashboard Panel Development**
 - Developed a lightweight dashboard redesign by reducing the LED layout for a full color TFT display and optimizing the casing form factor, achieving a 20% reduction in total weight.

UGAHacks - Hardware Design

February 2026

Project Wander

- Led hardware design for *Wander*, a motion-controlled arcade game, driving CAD modeling and rapid tolerance-driven 3D prototyping of a custom ESP32 + IMU wireless wand, optimizing sensor alignment, PCB fitment, wire routing, and assembly reliability under 48-hour hackathon constraints.

Gladiator Robotics 5109 (FRC)

August 2021 - May 2025

Climb Subsystem Lead

- Designed the 2025 climbing system, incorporating a spring-assisted barb-claw mechanism, gear ratio optimization, and a cable-operated winch actuation, culminating to the team's advancement to the quarterfinal stage in the Peachtree District/State Championship.

Technology Student Association (TSA)

August 2021 - May 2025

EV Racing Research & Design Team Lead, Driver

- Developed the 2025 EV Kart chassis and dynamic profile using **Solidworks** CAD and CFD analysis, racing for the team in the Fall Leadership Conference (FLC), achieving 7th place among 40 teams.