

IAN CARMENATES

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Mechanical engineering student seeking a summer 2027 motorsport or automotive engineering internship.

EDUCATION

Florida International University: Miami, FL

Expected Dec 2028

Bachelor of Science in Mechanical Engineering

Miami Dade College: Miami, FL

Aug 2023 - Dec 2025

Associates of Science

PROFESSIONAL EXPERIENCE

Race Team Intern

Aug 2026 - Present

Olivia Racing (USF Juniors)

- Train as a mechanic and tire/fuel crew member on a USF Juniors team that won the 2026 series title.
- Rebuild suspension, brake, and aero components; run bed-ins, tire rotations, and setup changes.
- Run pit-lane turnarounds, track tire pressure and temperature splits, and make setup changes from driver feedback; review data logs between sessions to correlate telemetry with car behavior and track evolution.
- Road America finale: helped level scale pads and set corner weights, ride heights, and alignment.
- Supported a customer test day at Homestead-Miami with wet/dry tire, pressure, and aero changes.

Technician

Aug 2025 - Present

Arcade Time Entertainment

- Maintain 128 arcade machines at 95% uptime through preventative maintenance and component-level repair.
- Perform root-cause analysis and repair on integrated PCBs, electrical subsystems, and commercial thermal units, using multimeters and soldering equipment.
- Document every repair in a dated, categorized repair log (140+ entries) and give management daily updates on machine status, ordered parts, and repair timelines; cross-train a newer technician.

Lead Technician

July 2023 - Aug 2024

Planet Air Sports

- Directed a team of 2 technicians, assigning daily diagnostic and repair tasks for all facility wide mechanical and electrical equipment.
- Diagnosed and repaired equipment quickly, tightening maintenance scheduling and tracking parts inventory and repair logs to cut downtime and costs.

Sales, Operations, & Asset Protection Associate

Aug 2024 - Dec 2025

Bestbuy

- Front Door Associate and electronics sales: theft prevention, customer sales, and store stock.

PROJECTS

- **Engine Cover Mount (Fusion 360, Bambu P1S):** Designed and 3D-printed a modular hub-and-arm wall mount for engine covers; iterated through three hub designs to a rosette-tooth joint that locks arm angle and height.
- **BMW B46 Downpipe Mount (OpenSCAD, Fusion 360):** Designed a 3D-printed wall cradle for a stainless downpipe from physical measurements; rebuilding it after the first wall anchors failed in a foam-filled cavity.
- **Automotive:** Own diagnostics and ECU unlock for tuning on a turbocharged BMW 430i (ISTA, MG Flasher); assisted with removing and tearing down a B46 engine from an X3.

Skills & Certifications

Mechanical: Race Car Prep (suspension, corner weights, ride height, alignment, tire pressures), Engine Diagnostics (BMW ISTA), Drivetrain Maintenance, Precision Measurement, Soldering, Component-Level Repair, Pneumatic Systems.

Software/Analysis: Autodesk Fusion 360, OpenSCAD, Python, MG Flasher Data Logging, Telemetry Review, Linux (Mint/CLI), Windows Systems.

Tools: 3D Printing (Bambu P1S), Scale Pads, Multimeters, Power tools, Hydraulic Lifts.

Languages: English (Fluent) and Spanish (Intermediate).