Bradley Cederholm

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EXPERIENCE

Solar Gators **Aug. 2025 – Present**
Strategy Lead *Gainesville, FL*

- As Strategy Lead, I architect and create telemetry systems, data-driven simulations, and web-apps for the Solar Gators solar racing team.
    - o Software used at FSGP meets each summer to predict energy expenditure and race performance based ono Softwa previous race data, discrete physics simulations, and weather prediction APIs.
    - o The tech stack includes TypeScript, React / Next.js, Golang, and REST APIs.
- Youngest lead of the Strategy team, and promoted after just 2 semesters as a team member.

PROJECTS

FSGP Track Simulation **Aug. 2025 – Present**
Gainesville, FL

- Architected and developed a physics-based race simulator for the Solar Gators Flare car. Our model uses predictive algorithms, multi-variable optimizations, and weather data to accurately optimize car speed and acceleration to achieve maximum performance.
- Results from the simulation are projected live into the cockpit of the vehicle via an embedded interface and wireless network developed by my team and I.

Telemetry Web Application **Sept. 2024 – Aug. 2025**
Gainesville, FL

- Redesigned and scaled the Solar Gators telemetry platform to a full-stack, real-time web application.
    - o Includes customized graphing, real time Google Maps API tracking, and data visualization options with full OAuth protection.
- Real-time CAN data from the car is received from the Flare car while online, with the data being fed into the website for real-time monitoring and tracking, with integrated functionality between the database and the Track Simulation.

NASA App Development **Sept. 2023 – Nov. 2023**
Weston, FL

- Led a six-person development team to build and deploy a Unity-based simulation platform visualizing the Haworth Crater on the moon with real-world NASA datasets for the NASA App Development Challenge
    - o My simulation featured real-time data overlays, with actual azimuth calculations based on actual communications systems, heatmap world levels, and full first-person astronaut simulation ability.

EDUCATION

University of Florida (3.80 GPA) **May 2028**
BS, Computer Science *Gainesville, FL*

SKILLS AND TECHNOLOGIES

C, C++, Golang, Java, Maven, C#, Typescript, Next.js, React, Tailwind CSS, Rust, REST APIs