



STRATEGY & SIMULATION

The Subsystem

As part of the strategy team, you'll use modeling, simulation, and data analysis to plan and optimize race performance. We combine telemetry, weather, and solar data to predict energy use, simulate race scenarios, and find the best driving speeds under changing conditions.

You'll also support design decisions by analyzing how aerodynamics, solar cell layout and car mass affect performance, helping find the best trade-offs between efficiency, speed, and reliability.

Your Requirements

- Enthusiasm for the project
- Problem-solving & optimization, finding best strategies under constraints
- High commitment and motivation
- Python coding & data analysis

Advantageous (but not required) skills:

- InfluxDB, Grafana, Docker, Github
- Linear programming, numerical methods, dynamical systems, stochastic processes
- Software development
- Computer Hardware, Raspberry Pi, weather station & solar sensors
- CAD, 3D printing, computer networking

Our Tasks

- Improve Race strategy optimization
- More detailed car simulation
- Solar input model validation
- Live data integration
- Performance visualization
- Docker and pipeline setup
- Weather and terrain modeling
- Telemetry data analysis
- Compute design trade-offs

We Offer

- Gaining practical experience and develop new skills
- Ability to take ownership and shape the outcome of the project
- Interaction with Industry partners
- Being part of a interdisciplinary, close-knit team
- Participation in the World Solar Challenge in Australia

Application

Apply by filling out our Application form.

Scan the QR-Code or click below

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ACE
SOLAR  RACING