

# Matt Nugent – Electrical Systems and Data Engineer

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Dual Citizen of the United Kingdom and New Zealand

Motorsport electronics, systems and data engineer with 5+ years in elite motorsport, including F3, F2 and Australian Supercars. Experienced in electronic system integration, CAN architecture, motorsport loom design, fault diagnosis, and live track support. Passionate about building high-performance, reliable race cars. Dual citizen (UK/NZ) and open to relocation.

## KEY ACHIEVEMENTS

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- Managed the electrical system build of six cars over three new platforms in four months in conjunction with a busy test program.
- Awarded a MSc in Advanced Motorsport Engineering at Cranfield University with a thesis titled "Optimisation of Energy Deployment for an Electric Rally Car".
- Senior leadership team member for University of Canterbury Motorsport team, overseeing the design, build and testing of an entirely new concept. The result was a well-tested, reliable package that was second fastest overall and placed third in the design event at FSAE Australia.

## WORK EXPERIENCE

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### **Rodin Motorsport: Farnham, United Kingdom – FIA F3 Data and Performance Engineer (Jan 2023 – Dec 2025)**

Formerly Carlin, UK based team with a rich history in junior formula racing.

- Responsible for all data and electrical systems across the FIA F3 team.
- Design, specification and development of electrical systems on new cars across all teams within the company.
- Design of bracketry and tooling to be printed, machined or manufactured in carbon.
- Developed tools and processes to improve analysis capabilities within the team.
- Worked closely with race engineers to explore performance pathways.
- Time critical problem-solving during sessions and across testing and race events.
- Close collaborative relationship with chief mechanic to pursue 100% reliability.
- Mentor junior data engineers within the company.

### **Supercars: Gold Coast, Australia – Programming and Data Engineer (Jan 2021 – Dec 2022)**

Supercars is Australia's leading motorsport category.

- Oversight of all motorsport data related issues within Supercars.
- Developed and generated internal and external reports related to scrutineering, safety, and R&D of the new age "GEN3" car introduced in 2023. This included automating processes with Python, Matlab and Excel.
- Performed live, time-sensitive data analysis during all sessions across Australia and New Zealand.
- Developed relationships with all Supercars teams to facilitate constructive communication both ways.
- Designed and implemented test sensor package for the GEN3 development car.
- Built category-controlled logging and controls software package for GEN3.
- Directly involved regulation updates to close loopholes in sporting and technical regulations.

### **Formula Regional Oceania: New Zealand – Category Data Engineer (Jan 2026 – Feb 2026), Tyres and Fuel (Jan 2019 - Feb 2019)**

Formerly Toyota Racing Series, the category sits below FIA F3 in the FIA feeder series framework and is held throughout New Zealand in January and February each year

- Managed electrical systems across for the whole category.
- Improved analysis capabilities by automating data analysis processes.
- Strong focus on clear reporting of faults and resolutions, and effective databasing of data.
- Managed tyre and fuel operations for four Formula Regional cars during the Toyota Racing Series.
- Gave me a strong appreciation for the work required at all levels within a team to operate at a top level.

**Motorsport Electronics Ltd: Auckland, New Zealand – Engineer (Feb 2019 - Jun 2019, Jun 2020 – Dec 2020)**

Motorsport Electronics Ltd is New Zealand's leading motorsport electronics supplier.

- Designed and manufactured wiring looms and sensors for high-level motorsport applications.
- Completed detailed design work of the Toyota Gazoo Racing FT60 chassis loom for the Toyota Racing Series (now, Formula Regional Oceania Championship).
- Hi-Pot Component testing, CAN Bus fault diagnosis and programming, manufacture of harnesses and sensors, and development of internal Excel tools.

**University of Canterbury Motorsport: Christchurch, New Zealand – Lead Powertrain Engineer (Mar 2017 – Dec 2018)**

University of Canterbury Motorsport is the Formula SAE team at the University of Canterbury.

- Lead Powertrain Engineer, managing a team of 6 students, leading sub team meetings and facilitating discussion amongst team members.
- Personally responsible for, engine calibration, final drive design and full electrical system design and build.
- Lead testing engineer, managing input from sub-teams to organise and execute test plans.

**EDUCATION**

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**MSc Advanced Motorsport Engineering: Cranfield University, Cranfield, United Kingdom (Oct 2019 - Sep 2020)**

- **Thesis:** Optimisation of Energy Deployment for an Electric Rally Car. A project primarily based on vehicle simulation and optimisation of energy use, created using python.
- **Group Design Project:** Development of a hydrogen combustion/battery electric hybrid Lotus 7 style race car. Involved primarily in powertrain and lap time simulation, and mechanical design.
- **Modules:** Motorsport Electronics and Data Acquisition, Composite Structures for Motorsport, The Business of Motorsport, Motorsport Aerodynamics, Motorsport Vehicle Dynamics, Motorsport Powertrains, Computational Fluid Dynamics for Motorsport, Motorsport Structural Analysis.

**BE (Hons) Mechanical Engineering: University of Canterbury, Christchurch, New Zealand (Feb 2015 - Nov 2018)**

- **Second Class Honours (Division One)**
- **Golden Key International Scholar:** Recognition for being in the top 15% of the cohort.
- **Final Year Modules:** Honours Research and Development Project, Computational Fluid Dynamics, Mechanical Systems Design, Linear Systems Control and System Identification, Aerodynamics and Ground Vehicle Dynamics, Engineering Product Design Analysis, Engineering Management and Professional Practice for Mechanical Engineers.

**SKILLS**

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- Comprehensive knowledge of Excel, Magneti Marelli, MoTeC and Life Racing software suites.
- Extensive experience with CAN networks, sensor setup and calibration, electronic problem solving, wiring harness design and build, and data acquisition systems.
- Skilled in MATLAB, Python, Microsoft Office suite, Solidworks, LaTeX.
- University project-based experience with CATIA V5, ANSYS Fluent, AVL Boost.

References available from all former employers.