Michael Fahey

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Education

University of Manchester

MSc Robotics Sept 2025 – Expected Sept 2026

- Exploring ROS2, robotic manipulators, autonomous mobile robots, control theory and actuator kinematics

BSc (Hons) Computer Science: Final Grade 75.4%: First Class with Honours Sept 2022 – June 2025

- Undertook software development in Python and C++ among other programming languages, explored themes including data science, computer vision, machine learning, chip development and microcontroller programming

Experience

Manchester Stinger Motorsports – Manchester Formula Student

Team Leader July 2024 – Present

- Directed a 150-member team to deliver the university's first electric vehicle to FSUK competition, obtaining positive validation on high voltage battery design and feedback to guide future design improvements
- Distinguished 100 new members from 400 applicants through a multi-stage recruitment process, retained 70% of recruits for a 2nd season, the most successful onboarding in team history
- Secured £1000 sponsorship for electronic components and tooling, facilitating use of mil-spec connectors
- Exercised safe practices in high voltage work attracting commendation from FSUK competition scrutineers

Electrical Sub-team Leader July 2023 – July 2024

- Secured £2000 Cosworth data acquisition equipment sponsorship, integrated data logger into existing electrical systems and analysed testing data to influence team wide design choices
- Built vehicle electrical systems ahead of schedule and passed all competition inspection of functionality
- Established a new team standard for wiring harness design, detailing connector specification and environmental protection whilst increasing focus on CAN based systems resulting in harness weight reduction
- Improved sub-team training by adding active learning tasks and retained all sub-team members for another season

Electrical Engineer Sept 2022 – July 2023

- Designed a custom vehicle harness connecting 20+ vehicle sensors and actuators to a third-party ECU, enabling engine performance optimisation and data acquisition to influence design goals

The Green Dragon Public House, Flaunden

Junior Chef Nov 2020 – May 2022, June 2023 – Sept 2023, June 2024 – Sept 2024

- Maintained high food hygiene standards whilst efficiently preparing dishes in a high-pressure kitchen environment

Projects

Third Year Dissertation Apr 2025

"Developing a Digital Driver Dashboard for the University of Manchester's Formula Student Car"

- Developed software in C++ to decode CAN data into a concurrent access data structure, displayed vehicle data in a real-time graphical interface, maximised refresh rate (60Hz) for accessible viewing by the driver
- Built Python-based CAN testbench for off-vehicle validation of telemetry data decoding pipeline
- Configured interface to provide real-time diagnostic data readout for fault diagnosis and live performance analysis
- Designed a chassis mount enclosure for the chosen Raspberry Pi hardware, suitable for additive manufacture

Awards & Certifications

- C&G Level 2 Award in Safe Maintenance of Electric & Hybrid Vehicles Dec 2023
- C&G Level 3 Award in Component Removal and Replacement in Electric & Hybrid Vehicles Dec 2023
- Craig Dawson Award for 'Most Valuable Team Member' at FSUK 2023 July 2023

Skills

Programming & Data Analysis: Python, C++, Java, NumPy, Pandas, Matplotlib
Engineering Tools: Verilog, Git, SolidWorks, Fusion 360, CAN systems
Other: Spreadsheeting, Web Development, Livestreaming tools