James Goss

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Profile:

A highly motivated engineering student at Monash University, currently pursuing a degree in Mechatronics Engineering with a specialisation in Artificial Intelligence. Proven expertise in robotics, control systems, and motor design, demonstrated through various hands-on projects and team collaborations. Recognized for exceptional leadership, teamwork, and a proactive problem-solving mindset.

Employment History:

- Powertrain Engineer | Monash Motorsport | February 2024 – Present
    - Designed a custom electric motor using Ansys Maxwell and SolidWorks within a small team.
    - Performed data analysis using MoTeC i2 Pro software, to inform the design of custom electric motors.
    - Worked closely with custom inverter control systems and hardware to optimise car performance.

- Lifeguard | Carlton Baths | October 2023 – Present
    - Maintained a safe environment for all pool visitors by vigilant monitoring and strict enforcement of safety regulations.
    - Collaborated effectively with team members to uphold high standards of cleanliness and safety within the pool facilities.
    - Conducted regular training sessions on water safety for pool staff and visitors, enhancing community awareness and safety.

- Academic Tutor at St Kevin's College: Jan - Dec 2023
    - Developed personalised learning strategies, improving student performance and engagement.
    - Demonstrated leadership and communication skills in an educational setting.

- Waiter at Stanley Cafe, Mt Waverley: Jan - Dec 2022
    - Delivered exemplary customer service in a fast-paced environment.
    - Managed multiple tasks efficiently while maintaining high standards of service and teamwork.

Arduino Engineering Projects

- Self-Balancing Motorcycle: Developed a self-balancing motorcycle using Arduino, focusing on the principles of control systems and PID controllers.
- Mobile Rover: Built a mobile rover capable of navigating obstacles, integrating concepts of robotics, sensors, and autonomous systems.
- Drawing Robot: Created a drawing robot that can replicate images, emphasising skills in kinematics, stepper motors, and precision control.

Education:

- Monash University**:** Bachelor of Mechatronics Engineering and Computer Science (2027)
    - Specialising in Artificial Intelligence. Engaged in projects that emphasise the integration of mechanical, electrical, and computing disciplines.
- St. Kevin's College:
    - Graduated with an ATAR of 95.5. Excelled in Further Mathematics with a raw score of 49, underscoring strong analytical and problem-solving skills.

Skills:

- Programming Languages: Python, C, Matlab
- Software & Tools: Ansys Maxwell, SolidWorks, MoTeC i2 Pro
- Soft Skills: Leadership: Teamwork, Problem-Solving

Certifications:

- Working with Children's Check
- First Aid Certification
- Machining TAFE Course Certification
- Solidworks CSWA Exam Certificate
- Leap Ansys FEA Skills Training Certificate.