Nick Wenzel

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Education

University of Melbourne, MC-BIOMENG Master of Biomedical Engineering — Feb 2025 – Dec 2026

- Graduate Degree Package (Master of Biomedical Engineering)

University of Melbourne, B-SCI in Biomedical Engineering Systems — Feb 2022 – Dec 2024

- Melbourne National Merit Scholarship, Awarded 2022; Ormond College Students' Club Award, Awarded 2023
- Resident at Ormond College, 2022 – 2023
- Weighted Average Mark: 71.2

Sydney Grammar School — Graduated Nov 2021

- Rowing 2017-2021 (Full Colours with Honour Badge), First VIII; Australian Rowing Championships 2021; Army Cadets 2017-2021, Warrant Officer Class 1; Regimental Sergeant Major 2021; School Orchestra
- ATAR: 99.00

Experience

Undergraduate Engineer, 23Strands – Parkville, VIC — Jul 2024 – Present

- Developed a regulatory-compliant SAMD for IVF dosage and outcome prediction, comprised of Tensorflow machine learning models and SHAP explainability features
- Engineered a full-stack solution: TypeScript frontend, C# backend, PDF report generation and comprehensive model validation pipeline to improve prediction accuracy within required clinical thresholds
- Contributed to development of risk management frameworks whilst developing familiarity with CND's, clinical trial development, PICF's, SCRUM frameworks and Jira project tracking

Systems Engineer, Melbourne Space Program (Sensing Team) – Parkville, VIC — Aug 2024 – Present

- Developed a precision liquid measurement node for a humanoid bartending robot, leveraging ROS2 for closed-loop real-time pouring accuracy measurement
- Incorporated text detection methods via Tesseract OCR for real-time bottle recognition

Head of Events, Ormond College – Parkville, VIC — Nov 2022 – Nov 2023

- Recruited and onboarded a team of 6 students across specific roles to facilitate the delivery of on and off-campus events for 500+ patrons
- Solely responsible for security, insurance, licensing and safety, with a distinct focus on RSA compliance and accreditation across the student body

Projects

BeanieFlex, Grip assistance device for individuals affected by cerebral palsy — YouTube

- Team-based capstone project: wearable medical device prototype assisting flexion of finger muscles controlled solely through head movement
- Utilised CAD manufacturing and signal processing techniques to integrate servo and accelerometer into a wearable format, prioritising ergonomics, UX and patient safety
- Tools Used: LabVIEW, myRIO, Fusion360

Analog strain gauge front-end for insole pedometer

- In early development: a breadboard-based analog front-end for a strain gauge, which offers real-time visualisation of applied force via an LED
- Tools Used: Multisim, Analog Discovery 1, WaveForms

Technologies & Interests

Languages: Javascript, TypeScript, Python, Rust, C

Technologies: .NET, Azure, Vue, Tensorflow, MATLAB, LabVIEW, Multisim, WaveForms, Fusion360

Interests: Music production, event management, futsal, rugby, cross-country