Sean A'Hearn

0499 073 919
sean.ahearn@student.unimelb.edu.au
linkedin.com/in/sean-ahearn/
sean-ahearn.github.io/

PROFILE

A motivated Master of Biomedical Engineering student focused on advancing healthcare through innovative medical devices and biomedical research. Experienced in engineering design and analysis, with interests spanning electronics, medical imaging, biosignals and cell biology. A strong collaborator and problem-solver with demonstrated leadership, supported by experience in technical reporting and presentations. Seeking opportunities to contribute to impactful healthcare projects.

EDUCATION

Master of Biomedical Engineering (Business Specialisation) Mar 2024 – Dec 2026
The University of Melbourne, Parkville

- Weighted Average Mark of 76.37
- First Class Honours in Biofluid Mechanics, with other top subjects including Biosignal Processing, Bioinstrumentation, Bioengineering Data Analytics, Medical Imaging and Biomechanics

Bachelor of Science (Biomedical Engineering Systems) Mar 2021 – Dec 2023
The University of Melbourne, Parkville

- Weighted Average Mark of 77.95
- First Class Honours in 11 Subjects including Biosystems Design, Stem Cells in Development & Regeneration, Experimental Pathology and Applied Computation in Bioengineering

Victorian Certificate of Education Jan 2020 – Dec 2020
Xavier College, Kew

- The Dalton Award for Academic Excellence in VCE
- Biology Class Prize

TECHNICAL SKILLS

- Proficient in MATLAB, Autodesk Fusion, LabVIEW and circuit simulation software
- Practical experience with electronic circuits, components and fundamental circuit theory
- Certified in Electronics and Soldering by The University of Melbourne's Creator Space
- Laboratory experience with hydrogels, PCR, ELISA, electrophoresis, histology, mechanical testing (compression/tension) and fluid shear testing
- Strong skills in statistical analysis, technical writing, project tracking and scientific reporting

RELEVANT EXPERIENCE

Intern Biomedical Engineer Jul 2025 – Nov 2025

Murdoch Children's Research Institute (MCRI)

- Tested, validated and optimised multiple biosignal sensors
- Researched and evaluated materials for use in a prototype medical device
- Developed a Signal Quality Index (SQI) algorithm to assess and quantify photoplethysmography (PPG) signal quality
- Contributed to data-driven decisions on sensor selection and material suitability

Bioinstrumentation Project Mar 2024 – Jul 2024

The University of Melbourne, Parkville

- Designed and prototyped an analogue hearing aid that captured, amplified, filtered and delivered sound to the user, featuring a manual volume dial and alerts for hazardous noise levels

Biosystems Design Project Jul 2023 – Dec 2023

The University of Melbourne, Parkville

- Collaborated in a team of 5 to develop a wrist-worn wearable device that monitored UV exposure and internal body temperature, alerting users to potential risks of skin damage and heat stroke
- Managed device circuitry and design, circuit simulation, component soldering, structured testing, 3D-printed enclosure design, signal acquisition and processing, data analysis and visualisation and technical report writing

OTHER EMPLOYMENT

Delicatessen Staff Member Dec 2020 – present

Boccaccio Cellars IGA, Balwyn

- Recognised by managers and customers for fast, friendly and quality service
- Trained and mentored 15+ new staff members
- Strong leadership and verbal communication skills established

REFEREES

Associate Professor Jonathan Mynard
MCRI Team Leader / Senior Research Fellow (Cardiovascular Bioengineering)
0422 322 196
jonathan.mynard@mcri.edu.au

Palma Casonato
Delicatessen Manager
0406 399 094
palma@boccaccio.com.au