

Felix O'Brien

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Highly driven final-year Bachelor of Advanced Computing (Research & Development) student, specializing in Machine Learning, with a strong academic record (6.667 GPA) currently undertaking a 24-unit honours project in Weakly Supervised Semantic Segmentation for Histopathology. Possessing a unique blend of technical prowess and leadership capabilities, demonstrated as Lead Developer at a startup, providing comprehensive systems administration and infrastructure management, and leading multiple student associations to foster wellbeing and community.

EDUCATION

Australian National University

Bachelor of Advanced Computing (Research and Development) (Honours)

2022 – 2025 (Current)

6.692 GPA

St Aloysius' College Milsons Point

2012-2021

99.45 ATAR

RESEARCH PROJECTS

A Study of Cross Batch Memory in Deep Metric Learning

Supervised by Prof. Stephen Gould

This thesis explores novel modifications to Cross-Batch Memory for Deep Metric Learning, addressing computational efficiency and adaptability. It introduces Per-Class, Super-Class, and Delayed Normalisation techniques, demonstrating their effectiveness in enhancing DML model performance and stability.

Optimising Scientific Collaboration with Federated Learning

Supervised by Jacob Huang and Prof. Amanda Barnard AM

This paper investigates how Federated Learning (FL) can optimize scientific collaboration in materials science by simulating various data-sharing scenarios. The study concludes that sharing sample spaces is the most effective collaboration strategy for FL, outperforming scenarios where features are shared or no data is exchanged.

EMPLOYMENT HISTORY

Residential Support Officer - John XXIII College

JANUARY 2025 – PRESENT

As a Residential Services Officer (RSO) at the College, provided comprehensive support to students, prioritizing their health, safety, and wellbeing within the residential community. Responsibilities included proactive student assistance, after-hours emergency response, ensuring facility safety, and mediating conflicts to foster a respectful living environment. Collaborated with Student Services and the student leadership team to plan and implement community-building programs, enhancing the overall college experience for residents.

Lead Developer – Sembl

MARCH 2025 – PRESENT

As Lead Developer at Sembl, played a pivotal role in rebuilding the company's events platform from the ground up using Flutter with a Firebase backend. Key contributions included resolving critical issues in the existing application, introducing new features, and significantly enhancing the app's functionality, usability, and commercial viability through continuous updates and optimizations. This role involved close collaboration with the founders to ensure development aligned with business objectives and achieved high stakeholder satisfaction.

Apexhost / Fastrack – Systems Administrator

JUNE 2022 – AUGUST 2024

Responsible for providing comprehensive first-line technical support across a wide range of services, including email, domain management, and Virtual Private Servers (VPS). Significantly assisted in the migration of services following a business acquisition. Independently managed and executed the challenging task of decommissioning, removing, and transporting servers from a large-scale overseas data center in London, demonstrating capability in handling critical infrastructure.

ADDITIONAL ACTIVITIES

President - ANU Snowsports

2024 – PRESENT

Oversees the running of one of the largest clubs on the ANU Campus. Through management of the executive team ensures that we adhere to ANU Sport Policies by performing administrative duties such as financial reporting and running our AGM. Involved in the planning and attendance of on, and off-snow trips and Canberra based events. Won 2nd Place in the Men's Cross-Country Relay at Uni Nationals Snow in 2023.

Vice-President John XXIII College at ANU

As the Vice-President of John XXIII College at ANU, collaboratively led the Residents Association (RA) alongside the President, focusing on fostering student wellbeing through a diverse portfolio of inter-disciplinary events and initiatives. Played a crucial role in enhancing collegiate governance by leading the comprehensive rewriting and subsequent publication of the RA charter, significantly improving its accuracy and transparency for all residents. This role involved active collaboration with university student services to proactively address emerging issues and ensure student voices were effectively represented and responded to.

CERTIFICATES & AWARDS

HEX 3.8 Global Innovation Program – Singapore

2024

Actively participated in a two-week intensive program focused on global entrepreneurial development. Collaborated with international peers to research, develop, and pitch innovative solutions to a panel of investors. Gained future-ready skills and insights into the global startup ecosystem, demonstrating a commitment to innovation and fostering entrepreneurial growth.

Premier's Award for All-Round Excellence

2021

Students on the All-round Achievers list have been recognised on the Distinguished Achievers list for 10 or more units in their total pattern of study.

ADF Future Innovator's Award

2021

The award will recognise recipients' science and mathematics abilities while highlighting the value the Navy, Army and Air Force place on STEM skills and STEM career opportunities within Defence.

LANGUAGES

English, French (DEL F B1 – 2019)