# Projects and internships for student employability

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# TechLauncher: Group Computing Project

- Invented by Dr Shane Flit, developed by Dr Clive Boughton, Dr Lynette Johns-Boost, & Dr Charles Gretton
- Combines five ANU undergraduate & postgraduate project courses
- Students work on a real project, in a team for a real client.

See: R. Awasthy, S. Flint, and R. Sankaranarayana, "Lifting the constraints closing the skills gap with authentic student projects," in 2017 IEEE Global Engineering Education Conference (EDUCON). IEEE, 2017, pp. 955–960.



HMAS Perth with a Phased Array Radar from CEA Technologies in Canberra

Source: https://www.flickr.com/photos/133059881@N02/19756029272

## **Computing Internships**

Placements in business, & companies working for government, & government agencies.

Assessment by reports of the student, & their supervisor.



Wade Johanson from Canberra, Australia, CC BY 2.0 < via Wikimedia Commons

# Where to start with teamwork & internships

Make them courses, not extra-curricular.

Team academics with professional staff.

Make the assessment authentic.



ANU Hive coworking space for professional practice, 2023

## How to support work integrated learning

Involve alumni from industry.

Use industry standard online teamwork tools.

Make use of professional staff, & existing careers support service, careers and employability resourcess.



### Is WIL beneficial for your institution?

Do you offer work relevant programs?

Do your staff have WIL instructor training?

Do you have industry people teaching?



#### **ASD-ANU Co-Lab**

"... helps us develop the nation's future science, technology, engineering and mathematics (STEM) workforce" Australian Signals Directorate, 2021

#### ANU Needs More Tutors & Mentors

"Whenever possible, we employ tutors who are practitioners of their discipline. ...

While all TechLauncher teams meet regularly with a tutor, they often require advise from people with specific expertise not normally available within the university."

 $\label{thm:charge} Techlauncher,\ 2023 $$ $$ $$ https://comp.anu.edu.au/Techlauncher/get_involved/for_externals/#mentors.$ 



ANU TechLauncher Showcase 2019.

#### **Questions & More Information**

Cochrane, T. D., Narayan, V., Aiello, S., Alizadeh, M., Birt, J., Bone, E., Cowie, N., Cowling, M., Deneen, C., Goldacre, P., Sinfield, D., Stretton, T., & Worthington, T. (2022). Analysing mobile learning designs: A framework for transforming learning post-COVID. Australasian Journal of Educational Technology, 38(4), 1–21. https://doi.org/10.14742/ajet.7997

#### Paper on the blended design:

Worthington, T. (2019, December). Blend and Flip for Teaching Communication Skills to Final Year International Computer Science Students. In 2019 IEEE International Conference on Engineering, Technology and Education (TALE) (pp. 1-5). IEEE. https://doi.org/10.1109/TALE48000.2019.9225921

#### COVID-19 Experience:

Cochrane, T., Narayan, V., Aiello, S., Birt, J., Cowie, N., Cowling, M., ... & Worthington, T. (2021, November). Back to the Future Post Pandemic Socially Constructed Blended Synchronous Learning-Vignettes from the Mobile Learning SIG. In ASCILITE.

#### TechLauncher:

https://cs.anu.edu.au/TechLauncher/current\_students/

Learning to Reflect Module for TechLauncher, Blog posts 2018 to 2022, with drafts, & commentary: https://www.tomw.net.au/technology/education/learning\_to\_reflect/

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