In Progress
Please note that this Unit Profile is still in progress. The content below is subject to change.

COIT29224 *Deep Learning for Applied Computer Vision*
Term 2 - 2027

Profile information current as at 28/11/2026 08:53 am

All details in this unit profile for COIT29224 have been officially approved by CQUniversity and represent a learning partnership between the University and you (our student).The information will not be changed unless absolutely necessary and any change will be clearly indicated by an approved correction included in the profile.

General Information

Overview

This unit introduces deep learning for applied computer vision, focusing on perception and decision-making problems in autonomous systems. You will build a solid foundation in supervised learning, neural networks, convolutional architectures, and state-of-the-art vision models. You will apply these techniques to real-world datasets, including RGB images, hyperspectral data, drone imagery, and sports video, gaining hands-on experience with data from robotic and sensor platforms. Through case-based learning and programming exercises, you will formulate practical problems as learning tasks, design and train models, and evaluate their performance using quantitative metrics and visual analysis. The unit takes an end-to-end perspective, covering data preprocessing, data annotation, model training, optimisation, testing, evaluation, and deployment. By the end of the unit, you will be able to build deployable deep learning pipelines suitable for use in robotic platforms and decision-support systems across various domains.

Details

Career Level: *Postgraduate*
Unit Level: *Level 9*
Credit Points: *6*
Student Contribution Band: *8*
Fraction of Full-Time Student Load: *0.125*

Pre-requisites or Co-requisites

Pre-requisite: COIT20277 Introduction to Artificial Intelligence.
Important note: Students enrolled in a subsequent unit who failed their pre-requisite unit, should drop the subsequent unit before the census date or within 10 working days of Fail grade notification. Students who do not drop the unit in this timeframe cannot later drop the unit without academic and financial liability. See details in the Assessment Policy and Procedure (Higher Education Coursework).

Offerings For Term 2 - 2027

- Online

Attendance Requirements

All on-campus students are expected to attend scheduled classes – in some units, these classes are identified as a mandatory (pass/fail) component and attendance is compulsory. International students, on a student visa, must maintain a full time study load and meet both attendance and academic progress requirements in each study period (satisfactory attendance for International students is defined as maintaining at least an 80% attendance record).

Website

This unit has a website, within the Moodle system, which is available two weeks before the start of term. It is important that you visit your Moodle site throughout the term. Please visit Moodle for more information.

Class and Assessment Overview

Information for Class and Assessment Overview has not been released yet.
This information will be available on Monday 17 May 2027

CQUniversity Policies

All University policies are available on the CQUniversity Policy site.
You may wish to view these policies:

- Grades and Results Policy
- Assessment Policy and Procedure (Higher Education Coursework)
- Review of Grade Procedure
- Student Academic Integrity Policy and Procedure
- Academic Progression Policy and Procedure
- Student Refund and Credit Balance Policy and Procedure
- Complaints Policy and Procedure
- Information and Communications Technology Acceptable Use Policy and Procedure

This list is not an exhaustive list of all University policies. The full list of University policies are available on the CQUniversity Policy site.

Previous Student Feedback

Feedback, Recommendations and Responses

Every unit is reviewed for enhancement each year. At the most recent review, the following staff and student feedback items were identified and recommendations were made.

Feedback from UC reflection

Feedback
Students can use AI to achieve very good assessment results, making it difficult for the assessment to accurately and fairly reflect their individual performance.

Recommendation
Improve assessment design to reduce inappropriate AI use, for example, by incorporating open-ended, competition-based tasks with no standard answers that require students to demonstrate originality and critical thinking.

Feedback from UC reflection

Feedback
The current marking criteria are too broad to accurately assess the quality of student work.

Recommendation
Develop more detailed marking criteria that clearly align assessment tasks with the intended learning outcomes.

Unit Learning Outcomes

Information for Unit Learning Outcomes has not been released yet.
This information will be available on Monday 17 May 2027

Alignment of Learning Outcomes, Assessment and Graduate Attributes

Information for Alignment of Learning Outcomes, Assessment and Graduate Attributes has not been released yet.
This information will be available on Monday 17 May 2027

Textbooks and Resources

Information for Textbooks and Resources has not been released yet.
This information will be available on Monday 17 May 2027

Academic Integrity Statement

Information for Academic Integrity Statement has not been released yet.
This unit profile has not yet been finalised.