COMP250

Individual Specialist Computing Project: Artificial Intelligence

Module Induction

Module Description

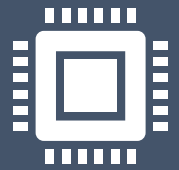
On this module, you will learn how to apply artificial intelligence to the problems and opportunities presented by creative domains.

There is particular emphasis on the technical qualities of artificial intelligence as well as the current and future impact of artificial intelligence on society.

You will conduct research into a specialist topic within artificial intelligence and relevant to your course. You then apply your learning in a practical context.

You may tie this work into the collaborative project modules or present it as a standalone specialist piece.

Learning Outcomes



Architect: Integrate appropriate data structures and interoperating components into computing systems, with reference to their merits and flaws.

Research: Develop an argument on a topic using appropriate research methods, primary and secondary sources, and academic conventions.

Assessments

Assignment 1
Computing Artefact
70%

Assignment 2
Technical Report
30%

Assignment Briefs

See LearningSpace

Week 1	Week 2	Week 3	Week 4	Week 5
Introduction to Artificial Intelligence	Agents Authored Behaviour	Game Theory Planning	Utility-Based AI	Game Tree Search
	Proposal Review			2: Technical Report
Week 6	**Week 7**	**Week 8**	**Week 9**	**Week 10**
Poster Demonstration	Procedural Content Generation	Evolutionary Algorithms Machine Learning	Deep Learning Multi-Agent AI	AI and Society
				Peer Review
				1: Computing Artefact
Week 11	**Easter holiday (2 weeks)**	**Week 12**	**Week 13**	**Week 14**
Project Vivas		Assessment / GAM240 / Portfolio Development		

Topics

Summative Submissions (approximate)

Formative Milestones

Week 1	Week 2	Week 3	Week 4	Week 5
Module induction (1hr)	Lecture (ASYNC)	Lecture (ASYNC)	Lecture (ASYNC)	Lecture (ASYNC)
Portfolio workshop (2hr)	Portfolio workshop (2hr)	Portfolio workshop (2hr)		Portfolio workshop (2hr)
AI workshop (2hr)	AI workshop (2hr)	AI workshop (2hr)		AI workshop (2hr)
	Proposal review (1hr)		Project supervision (1hr)	
Week 6	**Week 7**	**Week 8**	**Week 9**	**Week 10**
	Lecture (ASYNC)	Lecture (ASYNC)	Lecture (ASYNC)	Lecture (ASYNC)
	Portfolio workshop (2hr)	Portfolio workshop (2hr)	Portfolio workshop (2hr)	Portfolio workshop (2hr)
	AI workshop (2hr)	AI workshop (2hr)	AI workshop (2hr)	AI workshop (2hr)
Poster demos (1.5hr)		Project supervision (1hr)		Peer review (1.5hr)
Week 11	**Easter holiday (2 weeks)**	**Week 12**	**Week 13**	**Week 14**
Project viva (1.5hr)				