ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING (AI/ML) UNDERGRADUATE ACADEMIC CERTIFICATE

AI/ML is changing the world on a grand scale. We are seeing its transformational impacts on public health, manufacturing, agriculture, financing, urban systems and smart communities, social welfare, criminal justice, environmental sustainability, and national security. This certificate is intended to train students to understand AI/ML fundamentals, master algorithms, and be able to use state-of-the-art tools to develop AI/ML solutions for real-world problems. The certificate leverages the expertise from faculty in several departments to give students a strong interdisciplinary background.

Important advising information can be found at https://www.uidaho.edu/engr/departments/cs/degrees/cs (https://www.uidaho.edu/engr/departments/cs/degrees/cs/).

All required coursework must be completed with a grade of C or better (O-10-a (https://catalog.uidaho.edu/general-requirements-academic-procedures/o-miscellaneous/)).

Code	Title	Hours
CS 4712	Machine Learning	3
or CS 4771	Python for Machine Learning	
CS 4622	Applied Data Science with Python	3
CS 4715	Deep Learning	3
Select one of the following:		**3**
CS 4701	Artificial Intelligence	
CS 4727	Adversarial Machine Learning	
CS 4625	Semantic Web and Open Data	
CS 4731	Evolutionary Computation	
Total Hours		**12**

Courses to total 12 credits for this certificate

Understand, explain, and use the fundamental concepts and algorithms in machine learning and artificial intelligence.

Apply machine learning algorithms to analyze, model, and solve real-world problems

Implement and evaluate machine learning solutions for common machine learning and artificial intelligence problems such as data classification and clustering.

Develop leadership and teamwork ability for work in and leading group projects.