COURSE DETAIL

NON-EUCLIDEAN METHODS IN MACHINE LEARNING

Country
United Kingdom - England

Host Institution
Imperial College London

Program(s)
Imperial College London

UCEAP Course Level
Upper Division

UCEAP Subject Area(s)
Computer Science

UCEAP Course Number
155

UCEAP Course Suffix
N

UCEAP Official Title
NON-EUCLIDEAN METHODS IN MACHINE LEARNING

UCEAP Transcript Title
NON-EUCLIDEAN METHD

UCEAP Quarter Units
5.00

UCEAP Semester Units

3.30

Course Description

This course teaches students to evaluate geometric machine learning as a tool to model common learning frameworks. Students design optimizers on Riemannian manifolds to implement smooth constrained optimization; synthesize discrete operators on graphs from their continuous versions; and modify learning models to operate on constrained domains and outcomes. As part of the course, students implement deep learning on unstructured domains such as graphs, point sets, and meshes, as well as mechanisms to yield structured output from learning models.

Language(s) of Instruction
English

Host Institution Course Number
COMP70112

Host Institution Course Title
NON-EUCLIDEAN METHODS IN MACHINE LEARNING

Host Institution Campus

Host Institution Faculty

Host Institution Degree

Host Institution Department
Computing

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