



Thematic Research Training 2018-2019
Artificial Intelligence/Machine Learning (AI/ML) group
First meeting
Friday 14 December 2018, 10:30-17:30
Edinburgh, King's Buildings, G.69 Joseph Black

An Introduction to Supervised and Unsupervised Learning Methods for Biologists using Python

This one day event will provide training in using common machine learning (ML) tools to analyse data. Topics to be covered: how to prepare data for ML, writing simple algorithms for binary classification, performance evaluation of various algorithms, linear regression and unsupervised learning techniques. These topics will be introduced through 5 Jupyter notebooks and the algorithms will be applied to at least three different datasets.

Please note that while basic knowledge of Python is helpful, it is NOT necessary — there will be an introduction to Python for the first hour and a half to maximise the assimilation of the ML algorithms which are taught in the afternoon session.

Schedule

10:15	<i>Coffee/tea on arrival</i>
10:30 - 10:45	Python troubleshooting
10:45 - 11:00	High-level presentation
11:00 - 12:30	Introduction to Python
12:30 - 1:30	<i>Lunch</i>
1:30 - 3:30	Binary Classification
3:30 - 4:00	<i>Coffee break</i>
4:00 - 4:20	Regression
4:20 - 5:00	Unsupervised learning
5:00 - 5:30	Go back over anything else which people at the workshop want to revisit and closing of masterclass