

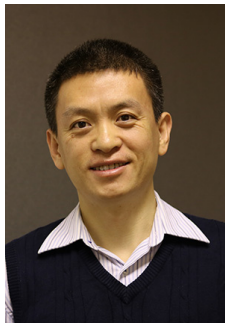
# COM4509 Machine Learning and Adaptive Intelligence

Department of Computer Science,  
The University of Sheffield

# Instructors



Dr. Mauricio A. Álvarez (Module leader)



Dr. Haiping Lu

# Teaching assistants



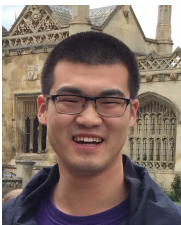
Areeb Sherwani (head TA)



Senee Kitimoon



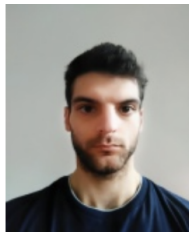
Nada Yehia



Chunchao Ma



George Chrysostomou



Michail Mamalakis

# Content of the module

Week	Starting	Subject	Lecturer
1	Sept 28	Intro. to ML and Review of Probability	MA
2	Oct 5	End-to-End machine learning	MA
3	Oct 12	Linear regression	MA
4	Oct 19	Decision trees and ensemble methods	MA
5	Oct 26	Automatic differentiation	MA
6	Nov 2	Logistic regression	HL
7	Nov 9	Neural networks	HL
8	Nov 16	Unsupervised learning	HL
9	Nov 23	Deep generative models	HL
10	Nov 30	Advanced applications of ML	HL

# How the module will be delivered? (materials)

- ❑ The materials for each week will be posted in Blackboard or GitHub before Mondays at 9:00 hrs.
- ❑ **Videlectures.** The lecture in the form of short videos for you to watch (posted in Blackboard).
- ❑ **Slides.** Slides accompanying the videolecture (posted in Blackboard).
- ❑ **Jupyter Notebook.** Each session will be accompanied by a Jupyter Notebook to illustrate practical aspects of the Lecture. You can run the Notebook on your own time (posted in GitHub).
- ❑ **Github repo:** <https://github.com/maalvarezl/MLAI>
- ❑ **Additional exercises.** Additional exercise sheets will be available, e.g. Weeks 1, 3, and 4 (posted in Blackboard).

# How the module will be delivered? (interactions)

- ❑ **Online synchronous sessions with the Instructor.**
  - Two online synchronous sessions with the Instructors using Blackboard Collaborate: Tuesdays and Thursdays from 11:00 hrs to 12:00 hrs.
  - We will use these one-hour sessions for interactive learning (e.g solving exercises individually and as groups, asking questions about material of the video lecture, etc).
- ❑ **Online synchronous sessions with the TAs.** We will offer several online help-desk sessions run by the TAs on a time slot that will be announced in Blackboard.
- ❑ **Face-to-face sessions.** Additionally, you will have face-to-face sessions with a TA every week on Tuesdays from 16:00 to 18:00. The room for this is PC lab 3 in the Diamond.
- ❑ **Discussion board.** You can use the Discussion Board in Blackboard to ask questions (managed by the instructors).

# We will use Blackboard for:

- ❑ sharing course material.
- ❑ a discussion board.
  - The discussion board IS for:
    - ▶ asking general questions about the contents of the lectures.
    - ▶ *clarifications* about the assignments.
    - ▶ if you know the answer to somebody else's question, please answer. Help your peers!
  - **The discussion board IS NOT for:**
    - ▶ asking how to solve the assignment.
    - ▶ give the solution to what is being asked in the assignments.
- ❑ Only email the Module leader if you have personal questions or issues. Otherwise, please use the discussion board.
- ❑ **Please, be professional and polite.**

# Assessment

## □ Assignments

Assign.	Subject	Hand out	Handle in	%
1	Weeks 1 to 5	Oct 15	Oct 29 (timing TBA)	30
2	Weeks 6 to 9	Nov 12	Nov 26 (timing TBA)	30
Total				60%

- First Blackboard quiz, Thursday Oct 15 starting 18:00 (24-hrs to submit solution), 20%.
- Second Blackboard quiz, Thursday Nov 12 starting 18:00 (24-hrs to submit solution), 20%.



# Marking and Feedback

Taken from the Student Handbook:

“Your lecturer will mark your work within a reasonable period. A reasonable period is

- within a week, for short question sheets from small classes;
- within three working weeks, for larger pieces of work or work for very large classes (if this includes a vacation this is five weeks),”