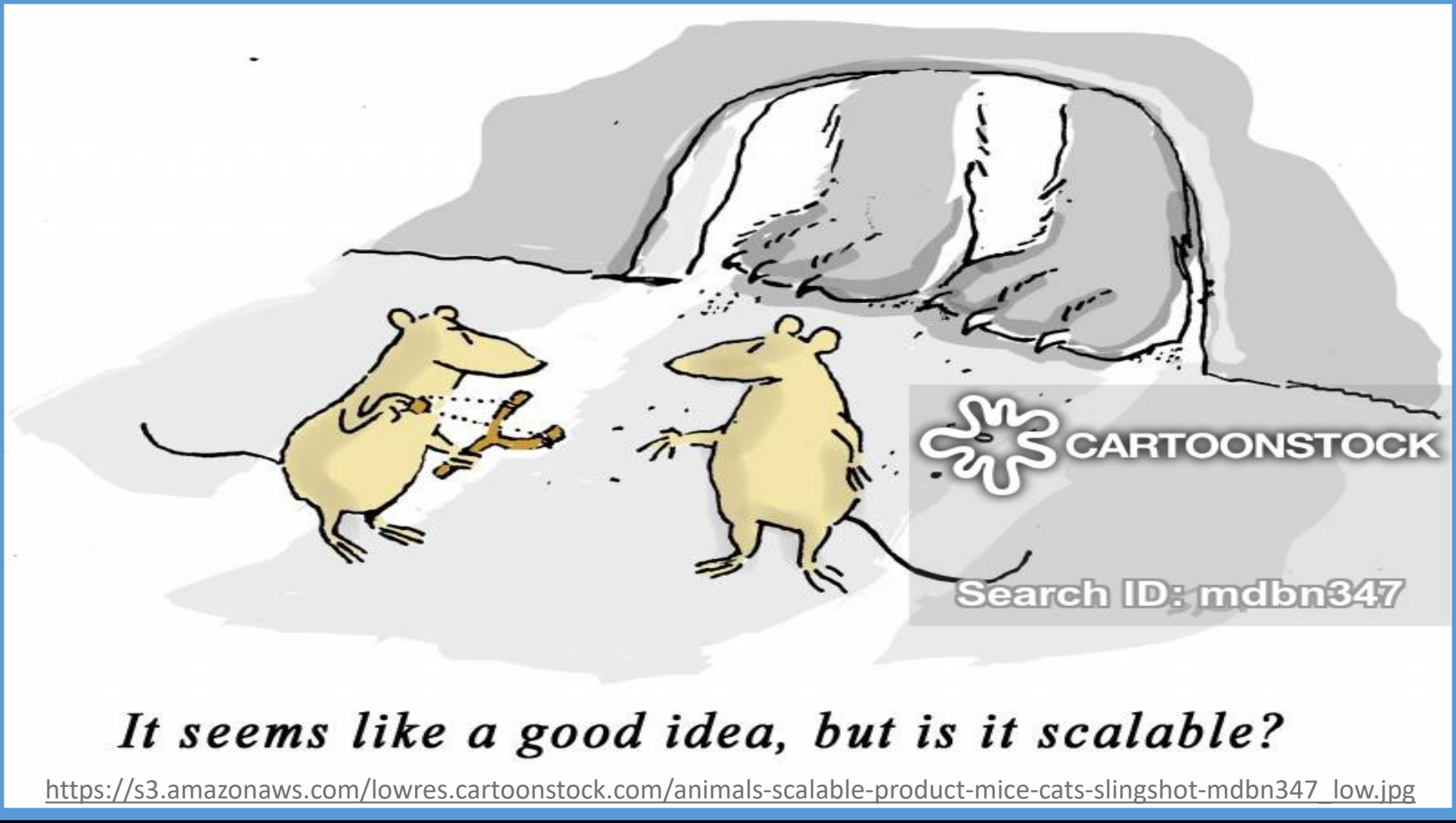


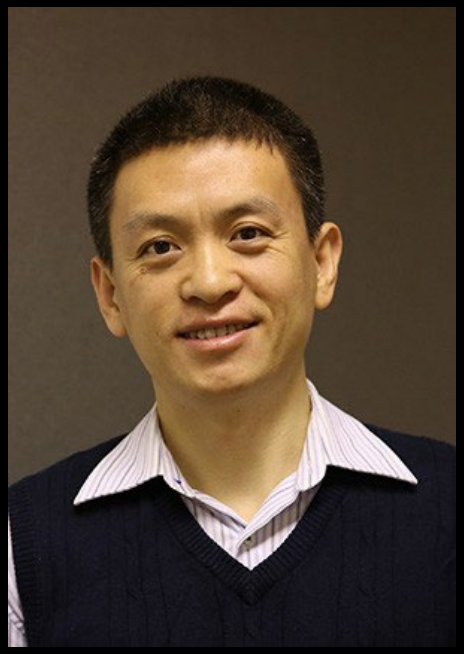
https://s3.amazonaws.com/lowres.cartoonstock.com/animals-scalable-product-mice-cats-slingshot-mdbn347_low.jpg

COM6012: Scalable Machine Learning - Spring 2022

https://github.com/haipinglu/ScalableML (Since 2019)

The University of Sheffield

Two Lecturers



Haiping Lu

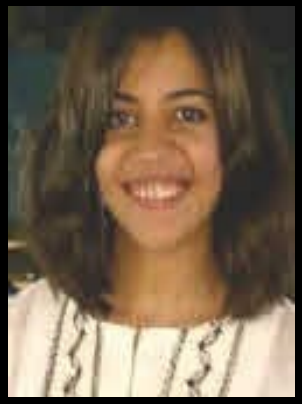
Module leader

Mauricio A. Álvarez

Five Demonstrators (TAs)

Areeb Sherwani (Head)

Pawel Pukowski

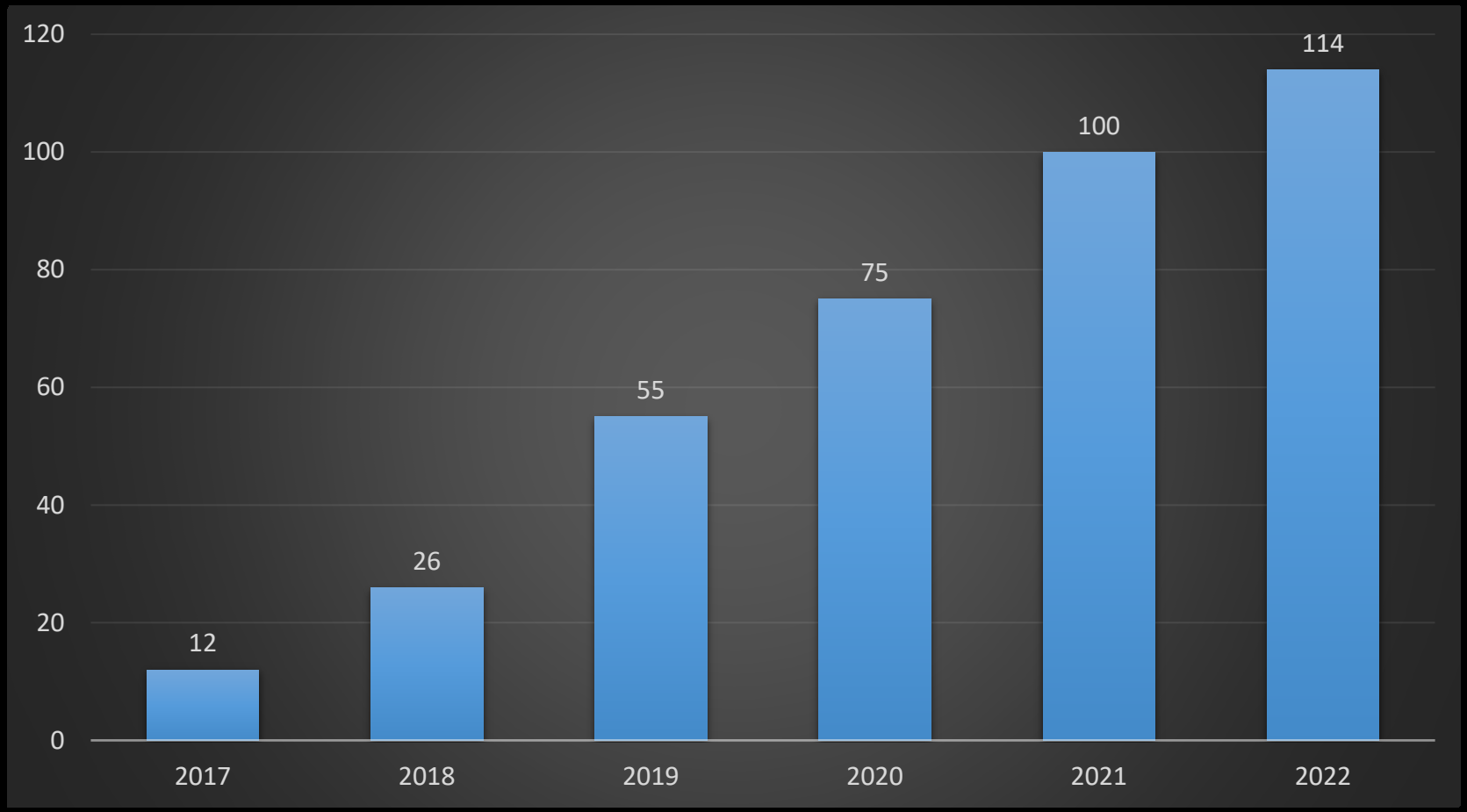


Nada Yehia

Benediktas Valys

Lawrence Schobs

Number of Students



Lectures and Labs

- Lecture: Thursday 10-11am @ Broad Lane Block (Mappin Building) LT 7

- Lab: Thursday 12-2pm @ Diamond Computer Room 3
  - **Finish required part of the labs in this slot!**

Other Interactions

- Online sessions
  - Lecturer blackboard collaborate office hour: Monday 1-2pm
  - Discord help sessions: Friday 11am-1pm
- BB discussion board: post your questions to get answered by the lecturer
  - One general forum: general question/feedback
  - Two lecture & lab forums: Haiping + Mauricio
    - To get help on lecture/lab contents
  - Two assignment forums: one for each part of the assignment
    - To ask for clarification on assignment questions (i.e. the tasks to do)
    - NOT to ask how to solve the problems, the correctness of a specific solution, or share a possible solution. It is an assessment.
- Direct email to the lecturer: personal/private issues

Assessment

- Lab exercises: 0% (self assessment)
  - Finish lab exercises by Tuesdays
  - Solutions to release on Wednesdays
- Assignment: 50%
  - Release: Part 1 = 17 March, Part 2 = 31 March 2022
  - Deadline: 15:00 on 05 May 2022 (end of lab)
  - Solution release: 12 May 2022
  - Marking and feedback deadline: 26 May 2022
- Final exam: 50%
  - To be scheduled in exam period (23 May – 10 June)
  - Formal exam on Blackboard: 2 hours

Contents: More Hands-on

Week	Date	Topic	Lecturer
1	10 Feb	Introduction to Spark and HPC	Haiping
2	17 Feb	RDD, DataFrame, ML pipeline, & parallelization	Haiping
3	24 Feb	Scalable decision trees	Mauricio
4	03 Mar	Scalable logistic regression	Mauricio
5	10 Mar	Scalable generalized linear models	Mauricio
6	17 Mar	Scalable neural networks	Mauricio
7	24 Mar	Scalable matrix fact. for collaborative filtering (RecSys)	Haiping
8	31 Mar	Scalable K-means clustering	Haiping
9	28 Apr	Scalable PCA for dimensionality reduction	Haiping
10	05 May	Apache Spark in the Cloud	Mike