Master in Data Science

Departments of Informatics & Mathematics

Programme board
Geir Storvik (Chair, MI)
Riccardo de Bin (MI)
Geir Kjetil Sandve (IFI)
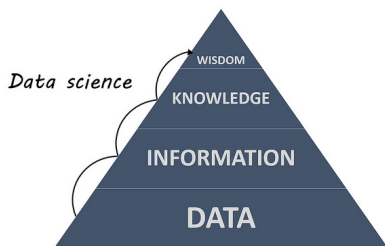Christos Dimitrakakis (IFI)

Universitetet i Oslo

Master in Data Science at UiO

- ▶ 222 applicants, 11 accepted!
- ▶ What is Data Science?

The science of extracting knowledge or insight from various types of data.

- ▶ This program: Combines mathematics, statistics and informatics making you ready for meeting the Data revolution.
- ▶ Goal of the program:

  Utilize the information contained in the vast amounts of data that are being collected in various areas such as medicine, finance, environment, and social media.

UiO : Universitetet i Oslo

General requirements

- Structure for storage of datasets
    - Accessible both for students and staff
- Manage large datasets
- High performance computing
    - Both batch and interactive processing
- Overview of possibilities
- Current situation (MI)
    - Local system for storage of data
    - Local high performance computers/Abel

UiO **:** Universitetet i Oslo

Specific requirements

- Database management
  - Undergraduate: Film database (managed by USIT)
  - Create personal database
  - Database equipment
- Analytics
  - R
    - `nnet, rnn, deepnet,h2o,tensorflow,rpart,tree,randomForest, lasso2,lars,grplassogbm,BayesTreeElemStatLearn,rattle`
  - Python
    - `Anaconda, scikit-learn, pandas, scipy, numpu, matplotlib, sklearn`
- Cloud computing
- Visualization tools
  - Interactive exploratory analysis
  - Large memory

UiO : Universitetet i Oslo