# Optimization Theory for Statistics and Machine Learning

Course taught by Hien Nguyen, La Trobe University, at the University of Caen, Normandy, from 14 November to 6 December, 2018.

Register for the course at https://evento.renater.fr/survey/cours-optimization-theory-for-statistics-and-machine-learning-t44hv

## **Progress**

- 14 November 2018.
  - Slides 1-39.
- 15 November 2018.
  - Slides 40-67.
  - Additional visualization added on Slide 68.
- 21 November 2018
  - Slides 69-104.
- 22 November 2018
  - Exercises 1.
- 28 November 2018
  - Slides 105-131.
- 29 November 2018
  - Exercises 2.

#### **Exercises**

**Exercises 1** can be accessed via the link: http://htmlpreview.github.io/?https://github.com/hiendn/CaenOptimization2018/blob/master/Exercises1.html. Solution codes are available in the respository and are labelled as *exercise1\_X.R.* 

### Links to useful resources

Matrix Cookbook: https://www.math.uwaterloo.ca/~hwolkowi/matrixcookbook.pdf.

## Error reporting

If you find any errors in the slides, please let me know via the issues page of the repository: https://github.com/hiendn/CaenOptimization2018/issues.