

Pre-requisites

- Working with Linux/Mac OS, if not you should install Ubuntu in dual boot mode.
- Basics Maths, Probability, Statistics
- Differential Calculus
- Matrices Transformations , Linear Algebra
- Expertise in Programming (writing algorithms) in any one language
- Knowledge of Object Oriented Programming

Review of Linear Algebra

- Linear Algebra by [3Blue1Brown \(https://www.youtube.com/watch?v=kjBOesZCoqc\)](https://www.youtube.com/watch?v=kjBOesZCoqc) [Short Playlist]
- Linear Algebra Notes by Andrew NG (<http://cs229.stanford.edu/section/cs229-linalg.pdf>)
- [Recommended Notes] [Linear Algebra Deep Learning Book \(http://www.deeplearningbook.org/contents/linear_algebra.html\)](http://www.deeplearningbook.org/contents/linear_algebra.html)
- Gilbert Strang, [MIT Open Courseware \(https://ocw.mit.edu/courses/mathematics/18-06-linear-algebra-spring-2010/\)](https://ocw.mit.edu/courses/mathematics/18-06-linear-algebra-spring-2010/) [Complete Course(Good but Optional)]

Reference Notes

- [CS229 Notes \(http://cs229.stanford.edu/syllabus.html\)](http://cs229.stanford.edu/syllabus.html) - Andrew NG (Simple & Easy to understand)

Reference Books

- Field Guide to Data Science (Book)
- [Deep Learning Book \(http://www.deeplearningbook.org/\)](http://www.deeplearningbook.org/)
- Machine Learning by Tom Mitchell (Good for foundation concepts)
- Pattern Recognition by Christopher Bishop (More mathematical)

Code Repository

Class codes will be available on [Github Machine Learning Online 2018 \(https://github.com/coding-blocks-archives/machine-learning-online-2018\)](https://github.com/coding-blocks-archives/machine-learning-online-2018) as course progresses.