# The Complete Machine Learning & Data Science Bootcamp - Course Resources List

appbrewery.co/p/machine-learning-course-resources



#### Section 2: Predict Movie Box Office Revenue with Linear Regression

- the-numbers.com Movie budgets and revenue data
- Try Jupyter Notebook Online (no installation)
- pandas.pydata.org the Pandas data analysis library
- matplotlib.org the Matplotlib graphing and plotting library

#### Section 3: Python Programming for Data Science and Machine Learning

- Install Jupyter with the Python Anaconda distribution
- The original research paper on test scores and LSD tissue concentration (for the more curious)
- Raw Experiment Data
- Exercise 1 Solution Python Variables
- Exercise 2 Solution Python Lists
- Exercise 3 Solution Python Functions Part 1
- Exercise 4 Solution Python Functions Part 2
- Exercise 5 Solution Python Functions Part 3

# Section 4: Introduction to Optimisation and the Gradient Descent Algorithm

- Symbolab.com an online derivative calculator
- SymPy Homepage a Python library for symbolic mathematics
- Exercise 6 Solution Python Loops

#### Section 5: Predict House Prices with Multivariable Linear Regression

- load boston() documentation available through scikit learn's website
- scikit learn regression metrics documentation
- US inflation calculator

• Exercise 7 Solution - Conditional Statements

## Section 6: Pre-Process Text Data for a Naive Bayes Classifier to Filter Spam Emails (Part 1)

- Spam Assassin data description
- <u>VS Code</u> optional Text Editor (my current favourite)
- Atom optional Text Editor
- Spam Assassin Public Corpus the original email dataset source
- Detailed description of the email data
- XKCD on Unicode
- <u>The Timewaster Letters</u> by Robin Cooper
- <u>isonmate.com</u> visualise JSONs
- <u>flatuicolors.com</u> colours that make pie charts look pretty
- www.nltk.org Natural Language Toolkit (NLTK)
- Documentation on Python sets
- Word stemmers on nltk.org
- Martin Porter's (rather humorous) homepage creator of the Porter Stemmer
- example.com clear and beautiful HTML on the web. Right-click to view source
- BeautifulSoup a tool to pull data out of HTML and XML files
- github.com/amueller/word cloud Andreas Mueller's WordCloud Github Repo
- WordCloud documentation
- <u>Pillow documentation</u> a module for image manipulation module
- Colormap reference (Matplotlib)
- Font Awesome free icons for masks
- Google Fonts free fonts for your projects
- www.wordclouds.com online word cloud generator
- What is mojibake?

#### Section 7: Train a Naive Bayes Classifier to Create a Spam Filter (Part 2)

- <u>Laplace Smoothing</u> (for the more curious)
- Numpy savetxt() documentation
- Numpy loadtxt() documentation

#### Section 8: Test and Evaluate a Naive Bayes Classifier (Part 3)

- Numpy .dot() product documentation
- Matplotlib marker types for data points
- Seaborn colour palettes for graphs and charts
- Color Lisa curated colours from famous artists
- webmd symptom checker the perfect tool for every hypochondriac?

### Section 9: Introduction to Neural Networks and How to Use Pre-Trained Models

- <u>Google Translate singing</u>
- Google Colab Notebooks getting started
- <u>ModelZoo.co</u> list of pre-trained models
- TensorFlow Hub list of pre-trained models
- <u>Sample Images for Image Classification</u>
- <u>Unsplash.com</u> high quality, royalty free images
- Pre-trained Models available through Keras
- Keras InceptionResNetV2 documentation
- Keras models and their methods
- Keras VGG19 documentation
- Google Blog Post on NasNet and Image Classification

### Section 10: Build an Artificial Neural Network to Recognise Images using Keras and Tensorflow

- Canadian Institute for Advanced Research (CIFAR)
- CIFAR 10 Dataset and Description by Alex Krizhevsky
- Keras Activation Functions
- Keras Optimizers
- Python strftime() documentation
- Fitting a Keras Model
- Keras Dropout Layer documentation
- predict() method documentation
- evaluate() method documentation
- <u>matplotlib colormaps</u> examples
- Python itertools efficient looping

#### Section 11: Use Tensorflow to Classify Handwritten Digits

- The MNIST Database
- Numpy eye() documentation
- Tensorflow Placeholder documentation
- Tensorflow matmul documentation
- Tensorflow relu documentation
- Tensorflow softmax documentation
- Softmax Cross Entropy with Logits
- Adam Optimizer
- MNIST handwritten digit database model comparison

#### Section 12: Serving a Tensorflow Model through a Website

- <u>TF Session Object documentation</u>
- Saved Model documentation
- Saved Model load() documentation
- <u>Session run() documentation</u>
- Model conversion
- <u>Tensorflow.js converter</u>
- Managing environments with Anaconda
- Atom text editor
- VS Code
- MDN Web Development Documentation
- W3 Schools
- FlatUI Colors
- <u>Getting started with Tensorflow.js</u>
- Favicon Generator
- MDN events
- W3 Schools HTML Canvas reference
- <u>Download the OpenCV.js file</u>
- Geometric transformations for images
- Contour Features & the Centre of Mass
- <u>Javascript map() documentation</u>
- <u>Tensorflow.js operations</u>
- Tensorflow.js dataSync
- Window setTimeout() documentation
- Github Pages