

# Launching into Machine Learning

## Readings and Videos

| Module 2: Improve Data Quality and Exploratory Data Analysis |   |
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|  | <a href="#">How to Handle Missing Data in Machine Learning</a>  |
|  | <a href="#">Guide to Data Quality Management</a>  |
|  | <a href="#">Exploratory Data Analysis With Python</a>   |
|  | <a href="#">How to investigate a dataset with python?</a>   |
| Module 3: Practical ML                                       |   |
|  | <a href="#">Supervised and Unsupervised Machine Learning Algorithms</a>                                     |
|  | <a href="#">Supervised Learning</a>   |
|  | <a href="#">What the Hell is Perceptron?</a>  |
|  | <a href="#">What is Perceptron: A Beginners Tutorial for Perceptron</a>                                     |
|  | <a href="#">Perceptrons and Multi-Layer Perceptrons: The Artificial Neuron at the Core of Deep Learning</a> |
|  | <a href="#">Perceptrons</a>   |
|  | <a href="#">Understanding the perceptron neuron model</a>   |
|  | <a href="#">Machine Learning for Beginners: An Introduction to Neural Networks</a>                          |
|  | <a href="#">What is a Neural Network?</a>   |
|  | <a href="#">Neural Networks and Deep Learning</a>   |
|  | <a href="#">Decision Trees and Random Forests</a>   |

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|  | <a href="#">Decision Tree vs. Random Forest – Which Algorithm Should you Use?</a>                  |
|  | <a href="#">Decision Tree and Random Forest</a>  |
|  | <a href="#">Random Forest</a>  |
|  | <a href="#">Kernel Methods</a>   |
|  | <a href="#">Kernel Methods</a>   |
|  | <a href="#">Modern Neural Networks Generalize on Small Data Sets</a>                               |
|  | <a href="#">Neural Network Architectures for Machine Learning Researchers</a>                      |
| <b>Module 4: Optimization</b>                |  |
|  | <a href="#">Introduction to Linear Models</a>  |
|  | <a href="#">Linear Models</a>  |
|  | <a href="#">How to Choose a Machine Learning Model – Some Guidelines</a>                           |
|  | <a href="#">How to Choose Loss Functions When Training Deep Learning Neural Networks</a>           |
|  | <a href="#">4 COMMON PITFALLS IN PUTTING A MACHINE LEARNING MODEL IN PRODUCTION</a>                |
|  | <a href="#">Common ML Problems</a>   |
|  | <a href="#">Performance Metric</a>   |
|  | <a href="#">Understanding Confusion Matrix</a>   |
| <b>Module 5: Generalization and Sampling</b> |  |
|  | <a href="#">When to stop Training your Neural Network?</a>   |
|  | <a href="#">Generalization, Regularization, Overfitting, Bias and Variance in Machine Learning</a> |