A Super Useful Month-by-Month Plan to Master Data Science in 2021

BEGINNER CAREER COURSES LEARNING PATH LISTICLE

Overview

- Your quest to understand how to become a data scientist in 2021 ends here
- Here's a month on month plan that you can follow to help you achieve your goals here

Introduction

Data Science as a career has seen massive growth over the years. If you love problem-solving, number crunching, and data then this is probably the right field for you. There's ac common notion that once you get into the field, you'll be set for the future.

But, there's a caveat here.

Data Science aspirants as well as experienced data scientists must keep themselves updated with the latest research and technology. In the field of data science, what was relevant a year ago might get extinct this year. That is how fast this space is evolving!

That is why we bring to you the latest learning path to become a data scientist in the year 2021! This is a month-on-month learning path for anyone who's looking forward to building a career in the field of data

science, machine learning, and deep learning.

I will be breaking down the machine learning goals in your month-on-month plan. Let's get started!

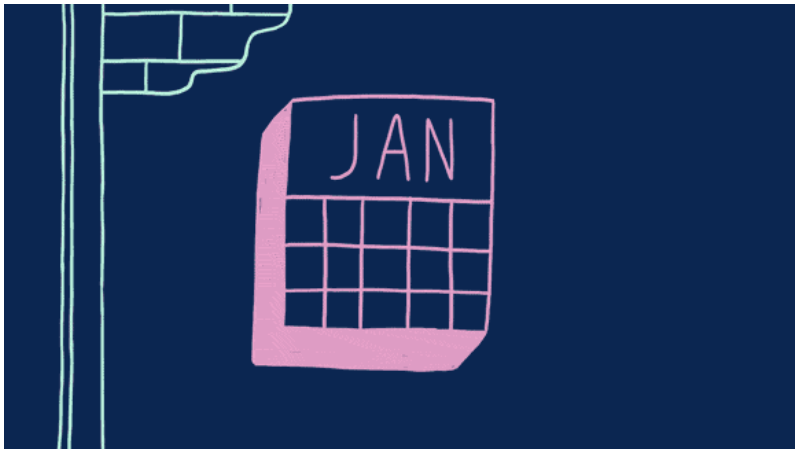
This learning path has been adapted from the free course – A Comprehensive Learning path to becoming a data scientist in 2021. You can check out the course to get all the resources structured according to the month-on-month plan.

What Topics are covered during this duration?

As I mentioned above, the skill set required by a data scientist keeps evolving. So what are we going to cover over the span of 12 months?

1. Data Science Toolkit
2. Data Visualization
3. Data Exploration
4. Basics of machine learning and the art of storytelling
5. Advanced machine learning
6. Unsupervised learning
7. Recommendation Engine
8. Time-Series data
9. Deep Learning and Computer vision
10. Natural Language Processing
11. Model Deployments
12. Projects and jobs

Month-on-Month Plan to Become a Data Scientist in 2021



January – Data Science Toolkit and Python

Let's begin this journey with the basics. In this month, we'll be covering all the basics which we call the Data Science Toolkit. You'll be understanding all the basic terms and start your journey in Python and its powerful libraries such as Pandas, NumPy, and Matplotlib.

Key Highlights of the month –

- What do data scientists do?
- Python for data science
- Pandas and Numpy
- Matplotlib and Seaborn
- Regular Expressions

February – Data Visualization

The secret recipe of data science is converting data into useful insights. In order to understand these insights, you must be well versed with an essential skill – data visualization, In this month, you will learn about different techniques to build great visualizations using an essential tool – Tableau. Another important skill to be covered this month is SQL. SQL is widely used for data capturing and analysis.

Key Highlights of the month –

- Data Visualization Tools
- Introduction to Tableau
- Different charts in Tableau
- SQL for Data Science

March – Data Exploration

In this month, we will cover the art of EDA (Exploratory Data Analysis) to capture insights from our data. Another important concept to focus on this month is Statistics. It is said that statistics is the grammar of data science.

Key Highlights of the month –

- Importance of Statistics
- Descriptive Statistics
- Introduction to Probability
- Inferential Statistics
- Exploratory Data Analysis (EDA)

April – Basics of machine learning and the art of storytelling

Let's get to the exciting part during this month – the basics of machine learning. Here, we will cover all the core concepts you will need to become a successful data scientist. Another bonus topic of this month is

storytelling using the art of structured thinking.

Key Highlights of the month –

- Machine Learning Pipeline
- Linear Regression
- Logistic Regression
- Decision Tree
- Naive Bayes
- Support Vector Machines (SVM)
- Structured Thinking: Art of Storytelling

May – Advanced machine learning

We are done with the basics and it is time to level-up our skills. In this month, we will move on to advanced machine learning topics like ensemble learning and its different variants. You will also learn about feature engineering and how to work with Text and Image data.

Key Highlights of the month –

- Ensemble Learning
- Random Forest
- Boosting Algorithms
- Advanced Ensemble Learning
- Hyperparameter Tuning
- Working with Text and Image Data

June – Unsupervised Learning

Till now we have covered supervised learning techniques. In this month we will focus on unsupervised learning and how we can utilize machine learning techniques on unstructured data. In this month, you will learn about unsupervised machine learning algorithms like K-Means, Hierarchical Clustering, and finally deep dive into a project.

Key Highlights of the month –

- Linear Algebra Basics
- Unsupervised Machine Learning
- K-Means
- Hierarchical Clustering
- Project: Unsupervised Learning

July – Recommendation Engines

Have you ever wondered how Netflix, Amazon, Swiggy provide you such amazing recommendations? Well, why not learn it for yourself? This month will focus on recommendation engines and also includes a

project to learn hands-on.

Key Highlights of the month –

- Matrix Algebra
- SVD and PCA
- Recommender Sytems
- Project: Recommender System

August – Time Series Data

In this month, we will deep dive into the application of Machine learning that has been used by organizations for decades – time series forecasting. The difference is that we will study simple techniques as well and move on to the advanced techniques.

Key Highlights of the month –

- Work with Time Series Data
- Time Series Forecasting Techniques
- Project: Time Series

September – Deep learning and computer vision

The ever-growing and most exciting field has to be computer vision. Its application range from image detection, classification all the way up to self-driven cars. From this month onwards, you will start your journey in the field of Deep Learning. You will learn basic deep learning architectures and then solve different computer vision projects.

Key Highlights of the month –

- Introduction to Deep Learning
- Deep Learning Architectures: MLP and CNN
- Project: Image Classification
- Transfer Learning
- Object Detection
- Project: Object Detection

October – Natural Language Processing

Natural Language Processing has been at the forefront of the recent advancements in machine learning in the last few years. The arrival of transfer learning in this field has completely transformed the space. This month will move your focus to the field of Natural Language Processing (NLP). Here you will learn more deep learning architectures and solve NLP related projects.

Key Highlights of the month –

- Basics of Natural Language Processing (NLP)
- Deep Learning Architectures: RNN, LSTM, GRU

- Project: Text Classification

November – Model deployment

What is more essential than building a data science model? Deploying it! In this month, you will learn different ways to deploy your models. You'll get to spend time on exploring streamlit for model deployment, AWS, and also get to deploy the model using Flask.

Key Highlights of the month –

- Streamlit for Model Deployment
- Amazon Web Services (AWS)
- Deploying models using Flask

December – Projects and Jobs

You are finally ready to face the world and make a living. The time has finally come to convert all your hard work into fruition! In this final month, you will do different projects and start applying for internships or jobs.

Key Highlights of the month –

- Apply for Internships and Jobs

End Notes

In this article, we discussed the month-on-month plan that will lead you to become a rockstar data scientist in 2021.

You can check out this free course which consists of all the resources you will need in order to fulfill this learning plan.

I hope this helps you in achieving your dream. I would love to hear your thoughts on this below.

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Ram Dewani

Product Growth Analyst at Analytics Vidhya. I'm always curious to deep dive into data, process it, polish it so as to create value. My interest lies in the field of marketing analytics.