

What is Data Science?

- Science is becoming increasingly relying on computation rather than experimentation. Currently, the world has so much data and you need to make sense out of it to take better decisions.
- Data science helps us to make better decisions. When you collect information about flight fares and find the cheapest ticket to book, you are using data science.
- The process of data science is similar to data mining although data science is mainly used for developing new theories and discoveries while data mining is used to extract useful patterns in data using existing techniques.

Here I present you a one year plan to learn data science with the associated mathematics as well. Each semester is three months.

Semester 1

- Calculus 1
- Linear Algebra
- Introduction to Probability theory
- Descriptive Statistics

Semester 2

- Calculus 2
- Inferential Statistics
- Introduction to Mathematical Programming
- Introduction to Computational Thinking and Data Science

Semester 3

- Convex Optimization
- Intro to Data Analysis
- Intro to Data Science
- A/B testing

Semester 4

- Machine Learning - Stanford
- Learning Python for Data Analysis and Visualization
- Information Retrieval
- Neural Networks

After finishing all the courses, It's time to do some projects. By picking the right project, you'll learn some math, statistics, machine learning, programming techniques, programming languages, and perhaps even get an inside track on getting the job.

Start competing in Kaggle and learn How you should create a hireable data science portfolio. Subscribe to Siraj Raval to do awesome projects and subscribe to Super Data Science Podcast to stay updated!