Data Science & Machine Learning in Python

Learn Data Science Online in 16-20 Weeks

Part-Time class commitment
Career Focus built into curriculum
Learn by Doing real projects, real data

Over 8,000 alumni, hired by tech companies worldwide

*As of Feb 2018 alumni data
Overview

Take a deep dive into the fundamentals of data science and machine learning in Python over 16 or 20 weeks. You'll gain a comprehensive understanding of the entire data science process from end-to-end, including data prep, data analysis and visualization, as well as how to apply machine learning algorithms to various situations or tasks.

You'll walk away with a project portfolio showcasing your data science acumen as well as an understanding of one of the fastest growing job sectors out there.

Designed for the Real World

Learn By Doing
A practical, accelerated curriculum designed for you to fix real-work problems by building real Data Science projects and solutions. You'll tackle over 100 interview-style questions so that you're fully prepared for the job search.

Core Concepts, Real Data-Sets
In 16 weeks, you'll learn the principle concepts and technologies behind modern Data Science, and work on real data-sets and problems to put your learning into practice.

Hands-On Training
Learn modern Data Science through hands-on assignments, projects, and mentorship from your instructor. Lectures are always live. You also have to access to TAs.

End-to-End, Extensive Curriculum
We'll cover the full Data Science process and the technologies to do the job, from data prep with Python libraries, to data modeling in Scikit-Learn, to visualization and presentation.
WEEK 1
Python for Data Science
Learn the Python fundamentals needed for data science.

WEEK 2
Manipulating and Understanding Data
Learn how to load, clean, and manipulate data using the Python library Pandas. Additionally, you will learn the strengths and weaknesses of using Python to manipulate data.

WEEK 3
Foundations of Data Modeling
Build visualizations to not only understand your data, but also how to communicate results to stakeholders.

WEEK 4
Statistical Inference
Learn how to use Python to implement key statistical techniques and understand statistics better by experimenting with Python on real-world datasets. This week concludes with a project to showcase your knowledge.

WEEK 5
Intro to Machine Learning
What is machine learning and why should you use the Python library Scikit-Learn for Machine Learning. Topics include types of machine learning, how to format your data to be acceptable for an algorithm, and how to train an algorithm.

WEEK 6
Decision Trees & Random Forests
Learn about tree-based machine learning algorithms, how to tune them to maximize their performance, and the strengths and weaknesses of each algorithm. Additional topics include feature selection for machine learning, and comparing machine learning algorithms.

WEEK 7
Logistic Regression and Regularization
Learn about the logistic regression algorithm and get a visual understanding of how the algorithm works. Additional topics include logistic regression for multiclass classification, L1 and L2 regularization, and hyperparameter tuning the algorithms learned so far.

WEEK 8
Clustering Algorithms
You’ll learn about a host of clustering algorithms, how to tune them, and the strengths and weaknesses of each.
WEEK 9

**Dimensionality Reduction**

What is dimensionality reduction. How to use it for data visualization, speed up machine learning algorithms, and understand your data better. Algorithms covered include Principal Component Analysis (PCA).

WEEK 10

**Gradient Boosting Machines**

Learn what gradient boosting algorithms are, why they are so performant, and how to get started with Kaggle competitions.

WEEK 11

**Using SQL with Python**

Working with databases is an essential part of being a data analyst, data scientist, and data engineer. This unit will cover how SQL and Python work together.

WEEK 12

**Intro to Deep Learning**

Learn about why deep learning has transformed industries, various deep learning frameworks, and when to use deep learning techniques. Topics include recurrent neural networks (RNN) and Convolutional Neural Networks (CNN).

WEEK 13

**Database Architecture**

Become familiar with entity relationship diagrams (ERD) and learn the advantages of using a relational database. Learn intermediate SQL queries to access and aggregate information.

WEEK 14

**Intro to ETL**

Develop an understanding of the process of extracting, transforming, and loading data.

WEEK 15

**Introduction to Statistics**

Learn tools for statistical analysis including measures of central tendency, variance and standard deviation and comparing means.

WEEK 16

**Model Assumptions**

Explore model assumptions and how to test for them. Apply this knowledge to choose the appropriate model for a data set.
WEEK 17

**Model Interpretations**

Learn to extract, visualize, and interpret model importances.

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**Technologies Covered**

Technologies subject to change based on student needs and hiring factors

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WEEK 18

**Time Series Analysis**

Identify, pre-process, and plot time series data with Python. Explore statistics, aggregation, and seasonal trends.

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WEEK 19

**Intro to Tableau**

Transform, explore, and analyze data while creating high-quality visualizations within Tableau.

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WEEK 20

**Dashboards in Tableau**

Create an interactive data dashboard in Tableau for data storytelling.
How to Enroll

1. **Explore**
   Schedule a Q&A call with Admissions to get quick answers about the bootcamp or join the next open house.

2. **Apply**
   Ready to join? Submit your application and pick your start date to join.

3. **Complete your Interview**
   Schedule an interview with admissions. The interview is non-technical - no technical experience is required.

4. **Deposit to Enroll**
   If accepted, submit your deposit to save your seat and gain access to bootcamp prep materials for your start date.

Apply Now

**Financing Options**

Schedule a call with an Admissions Advisor to discuss which payment or financing option is right for you.

**Pay in Full**
Save on tuition by paying in full upon enrollment

**Installments**
Spread payments over the course with standard and custom installment plans

**3rd Party Financing**
Finance bootcamp with a third party loan from a variety of lenders