

# Data Science Certificate

Get the hang of all the tools you need to become a data scientist: automation, machine learning, Python, and SQL. By the end of this certificate program, you'll be able to manipulate and evaluate data using Python and create beautiful data visualizations. Students will also learn to automate tasks with Python.

Group classes in NYC and onsite training is available for this course. For more information, email [corporate@nobledesktop.com](mailto:corporate@nobledesktop.com) or visit: <https://www.careercenters.com/courses/data-science>



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## Course Outline

This package includes these courses

- PostgreSQL Bootcamp (18 Hours)
- Python for Data Science Bootcamp (30 Hours)
- Python Machine Learning Bootcamp (30 Hours)
- Python for Automation (6 Hours)

### PostgreSQL Bootcamp

- Explore information stored in a database (tables, columns, rows, etc.) using the graphical interface of DBeaver (a popular free database app)
- Write SQL queries to retrieve data from tables in a database
- Combine information from multiple tables with JOIN statements
- Filter data, group it, and sort it to extract the specific info you need
- Advanced techniques like Subqueries, String Functions, and IF-Else logic with CASE
- How to use Views and Functions with parameters instead of directly querying tables

### Python for Data Science Bootcamp

- Handle different types of data such as integers, floats, and strings
- Control the flow of your programs with conditional statements, loops, and functions
- Reuse and simplify code with object-oriented programming
- Analyze tabular data with NumPy and Pandas
- Create graphs and visualizations with Matplotlib
- Make predictions with linear regression, using scikit-learn

## Python Machine Learning Bootcamp

- How to clean and balance your data using the Pandas library
- Applying machine learning algorithms such as logistic regression and random forest using the scikit-learn library
- Choosing good features to use as input for your algorithms
- Properly splitting data into training, test and cross-validation sets
- Important theoretical concepts like overfitting, variance and bias
- Evaluating the performance of your machine learning models

## Python for Automation

- Learn the syntax of Python and how to construct programs
- Learn how to run your programs on a regular schedule
- How to handle errors