



DATA SCIENCE WITH PYTHON

COURSE & SYLLABUS INFO



ABOUT THE PROGRAM

WHY PYTHON?

- Python is the most popular data science and AI programming language
- Scikit-learn and Keras/Tensorflow are some of the most popular and influential ML libraries
- Many employers prefer to hire data scientists who have Python skills



WHO IS THIS COURSE FOR?

If you have just learned Python programming, this course is a must-have before you move on to advanced topics such as machine learning and big data

This data science course is designed for students & professionals who want to learn essential data science skills to enter this field

For students who come from Matlab/R background, this course will help you understand the difference and advantages of Python

Students who come from software development background will benefit from this course by learning the core data science concepts and skills

PREREQUISITE

- In order to take this course, students will need to have basic Python programming experience.
- Prior statistics/calculus/linear algebra knowledge is nice to have but not a must
- You do not need prior experience with another statistical analysis tools such as R or Matlab, but it helps!
- Having an understanding of your firm's data, technologies, and goals will motivate and direct your focus in this program

LEARNING OUTCOMES

After this course, you will be able to:

- Understand the lifecycle of data science projects and reinforce the learning through hands-on exercises and projects
- Use Python to collect data from the Web
- Wrangle and manipulate messy data using Python libraries
- Visualize data and tell data stories using visualization libraries such as plotly, seaborn, and matplotlib
- Build predictive models and leverage the predictive insights to help business make better informed decisions
- Gain real world experience through a hands-on project and convince your manager that you're up for more challenging data science projects at work
- Have the confidence and skills to compete for data science jobs

INSTRUCTORS



Rogelio Cuevas

*Data Science, Director
@Sun Life Financial*



Rogelio Cuevas is an active member of the Toronto Data Science community who currently works as a Senior Data Scientist in the financial industry in Toronto and as a Data Science mentor for a San Francisco start-up.

His educational background has allowed him to work in various research-oriented institutions that include Duke University, McMaster University, University of Western Ontario and Fermilab. His past research activities made him a recipient of a postdoctoral Fellowship awarded by the Natural Science and Engineering Research Council of Canada.

Rogelio holds a double bachelor's degree in physics and mathematics, a master in physical-mathematics and a Ph.D. from McMaster University during which he focused on theoretical and computational tools applied to quantum systems.

PROGRAM DETAILS

5 WEEKS

55 hours in total

REAL BUSINESS CASE

to build your your portfolio

WEDNESDAY

6:30PM - 9:30PM EST

SATURDAY

9:00AM - 5:00PM EST

CURRICULUM

5 weeks

WEEK 1

Python Programming

- Introduction to Programming
- Python Programming Logic
- Python Data Types

WEEK 2

Python Programming

- Python Functions & Modules
- Class & OOP
- Working with PyCharm
- Version control with Github

WEEK 3

Python for Data Science

- Introduction to Pandas DataFrame
- Advanced Pandas Operations
- Python Leetcode Quiz

WEEK 4

Python for Data Science

- Data Visualizations with Python
- **Capstone Project #1: Data Science**

WEEK 5

Python for Data Science

- **Capstone Project #1: Data Science**
- **Capstone Project #1 Presentation**

HANDS-ON PROJECT

You will present a project on using machine learning applied to real life data.

The nature and scope of the project will be up to you to decide. During that session you we will mimic a business-oriented presentation. That is, you will put together a PPT explaining the data you used, how you collected, cleaned it, etc. All the way to your findings based on the use of a ML algorithm.

TUITION, GRANTS AND FINANCE OPTIONS

\$2,500

DO YOU KNOW THAT MOST EMPLOYERS WILL REIMBURSE THE TRAINING COSTS?

- We have a detailed course syllabus and email template that you can use to convince your manager that this is the right course for you and a good investment for your company
- You will have a completed project and presentation that you can use to demo to your manager and showcase your newly minted data engineering skills and get ready for more challenging projects



QUESTIONS?

Contact our program advisor, Amir, for more information amir.asadian@weclouddata.com