Career Track • Curriculum

Data Analyst – Focus Python

Qualification for the Job Role of a **Data Analyst**
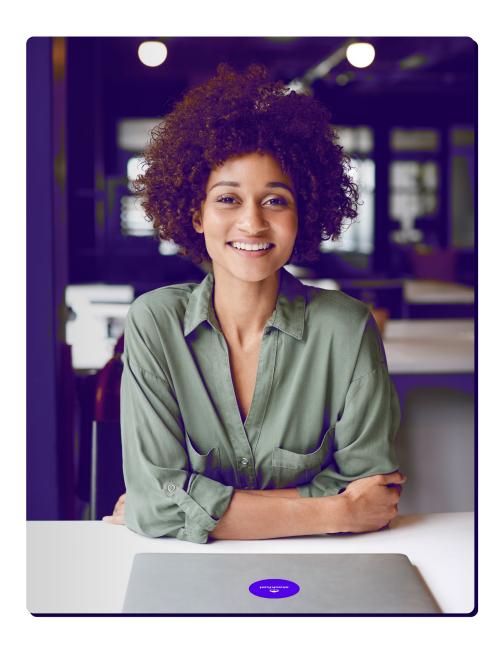
Why this course?

The digital transformation is leading to data being recognized as a decisive in companies securing their future and keeping their competitive edge. The demand for specialized employees who can effectively process and analyze data has been growing rapidly for several years.

This is one of the reasons why data analytics courses are more and more in demand. Data analysts play a central role in the digitalization process. They are the link between the specialist departments and the executives, aggregating and preparing data for data-driven decision-making.

With the certified online course to become a Data Analyst with focus on Python, you will enter the world of data analytics. You will be able to independently clean, prepare and visualize data and make predictions relevant to your company. You will gain in-demand skills in the programming language Python and machine learning. Furthermore, you will finish the program with a final project, so that upon successful completion of the career path, you will be qualified for the job role of data analyst or another analytical role such as business intelligence analyst or financial analyst.

25%
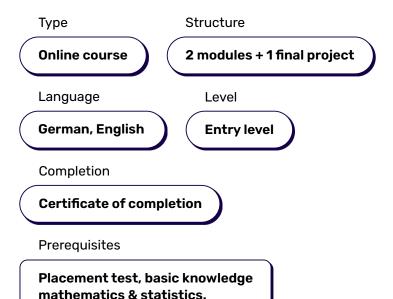of all company projects require data analysts these days.

Course content.

The goal of this hands-on course is to perform advanced data analyses on your own. You will learn how to work competently with Python, how to use the programming language to analyze data and how to create effective visualizations.

By working on a great deal of practical units and data sets, you will learn how to access, filter and merge new data sources. You will be able to use Python to make company data accessible in dynamic, interactive dashboards.

In a **nutshell**:

> Discover and filter data sources

> Combine and prepare data professionally

> Perform advanced data analyses independently with descriptive statistics

> Write simple scripts in the Python programming language

> Make simple predictions

> Best practices for effective data visualization

At a glance.

Type

Online course

Structure

2 modules + 1 final project

Language

German, English

Level

Entry level

Completion

Certificate of completion

Prerequisites

Placement test, basic knowledge mathematics & statistics.

Target group

The beginner's course is suitable for anyone who wants to learn Python as a programming language and to perform data analyses independently. You should have a basic motivation for data analytics and programming. This course is also suitable for career changers.

Module overview.

Beginner's Guide to Python

Objective:

> Introduction to programming with Python

Description:

> Participants familiarize themselves with the interactive learning environment - the StackFuel Data Lab - and the Python programming language.

Chapter 1: Python Basics

Participants navigate through the Data Lab for the first time and get to know the basics of programming. They learn to store numbers and text as variables in Python and to store these as groups in lists. To complete these basics, participants also learn how to read error messages correctly.

Chapter 2: Programming Basics

Participants continue to build their fundamental programming skills. This chapter focuses on applying functions and, as well as conditional flow controls.

Chapter 3: Loops and Functions

The last chapter of the basics module is dedicated to flow control using loops. Participants broaden their abilities by importing additional Python packages.

By the end of the chapter, participants know the most important programming concepts that are important working as a data analyst.

Module overview.

Data Analytics with Python

Objective:

> Independent collection, analysis and visualization of data with Python

Description:

> Participants learn to access, filter, and merge new data sources. They practice making company data available in attractive visualizations tailored to the target audience, and independently carry out classic data processing (importing, filtering, cleaning, and visualizing data).

Chapter 1: Data Pipelines (Pandas)

This chapter teaches the efficient use of Pandas – the standard data analysis tool in Python. Participants learn to use it to read, clean, and aggregate data in CSV files.

Chapter 2: Data Exploration (Matplotlib)

Participants practice visualizing different types of data using marketing data. Numeric data is represented as histograms and scatter plots, while categorical data is represented as column and pie charts.

Chapter 3: Predictions (Statistics)

Participants learn statistical concepts such as the median and quartiles using product ratings. They identify outliers and make simple predictions using linear and logistic regression.

Chapter 4: Internal Data (SQL)

Participants learn to read databases using a human resources database as an example and formulate standard SQL queries.

Module overview.

Data Analytics with Python

Chapter 5: External Data (API)

Participants use Python to access information such as web pages and APIs designed by StackFuel on the Internet.

Chapter 6: Advanced Jupyter

Participants learn Jupyter functionalities and solve advanced visualization problems such as live updates and interactivity in the context of a stock market scenario.

Chapter 7: Exercise Project

Participants analyze a New York taxi data set with over one million trips and use their Python skills as independently as possible to answer certain questions.

Chapter 8: Final Project

Participants analyze customer churn for a telecommunications company. They work through the entire data pipeline independently and answer typical questions.
They then present their project in a 1-on-1 feedback session with the StackFuel mentor team.
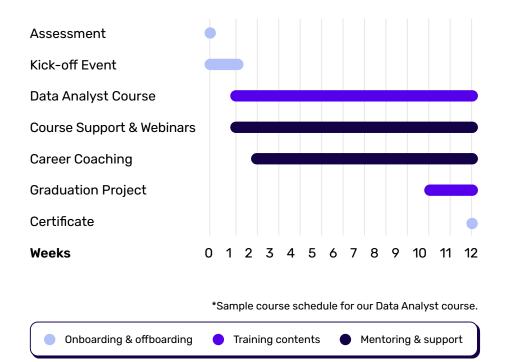
About StackFuel.

We are your strategic learning partner, suitable for every career level and professional orientation.

Whether you're changing careers, an employee or a manager, our certified and state-supported training courses in data, AI and programming will keep you up to date with the latest technologies.

Course schedule.

	Weeks
Assessment	
Kick-off Event	
Data Analyst Course	
Course Support & Webinars	
Career Coaching	
Graduation Project	
Certificate	

Weeks: 0 1 2 3 4 5 6 7 8 9 10 11 12

*Sample course schedule for our Data Analyst course.

● Onboarding & offboarding   ● Training contents   ● Mentoring & support

Training philosophy.

Online & flexible
Do your course part-time or full-time and learn 100% online in your browser on your PC or laptop at home.

Hands-on practice with real-life projects
In our Data Lab you will write your own algorithms with industrial data sets in interactive exercises and coding challenges.

Mentoring & career coaching
Your personal mentoring team will accompany you with coaching, feedback, and weekly group webinars.

Certified & eligible
As a certified training provider, you can get our courses fully subsidized by the job center and the employment agency.

Facts.

91% completion rate	**80%** interactive exercises	**20%** expert videos & text lessons

+150.000 learning hours in the Data Lab	**4,3 von 5** recommendation rate

Sponsorship opportunities.

Installments or part payment

Use our installments or part payment options to spread out the costs of your course over several months so you can remain financially flexible.

Education voucher

With an education voucher (Bildungsgutschein in German), you can get your course financed up to 100% by the Jobcenter or the Employment Office, if you are currently out of work or looking for employment.

Training opportunities act

If you are working, you can get your course partially or completely funded by your employer thanks to the Training Opportunities Act (Qualifiyierungschancengesetz in German) - regardless of your qualifications, age or the size of the company.

StackFuel scholarships

We regularly award various scholarships for our courses, to promote more diversity in the field of data. We want to encourage more people to take an interest in programming, and more women to work in data roles.

Support & mentoring.

Coaching

> Assessment
> Final project and evaluation
> 1:1 project feedback consultation
> Official certificate of completion

Personal mentoring

> Kick-off session
> Webinars with other course participants
> Support via email or phone
> Online forum

Career services

> CV and application coaching
> Talent pool and career intros
> Data community
> Career events

Ready to enroll?

**Get in touch with our consultants
and build up the skills you need!**

For Individuals

Maria Schwenke

Education Advisor

Book free consultation

For Businesses

Ginesh Koottakara

Head of Sales

Book free demo