



WBS CODING
SCHOOL

Data Science & AI

One-year program

 100 % online, full-time

 10 months of live lessons

 English or German

 2 months internship

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Why choose Data Science & AI?

Our daily lives are increasingly shaped by data, creating exciting opportunities to actively influence society, business, and technology through **Data Science and Artificial Intelligence (AI)**. These fields empower us to extract valuable insights from datasets, develop intelligent solutions, and make informed decisions—skills that are in high demand across almost every industry.

The key resource of the future

Companies rely on data to spot trends, optimize products, and secure a competitive edge. Understanding how to analyze and interpret data isn't just a sought-after qualification—it's a chance to drive innovation and shape the future.

Practical applications

From medicine to environmental protection to finance, Data Science and AI offer countless ways to make an impact. With these skills, you could help design smarter cities or tackle climate change. You'll master tools and technologies that turn data into meaningful actions.

Future-proof career opportunities

The demand for professionals in Data Science and AI is skyrocketing. Roles like Data Scientist, Machine Learning Engineer, and Data Analyst are among the fastest-growing careers globally. These fields also open doors to diverse industries—from startups and tech giants to traditional sectors like retail and logistics.

That's why you belong here!

Personal guidance and **interactive** learning formats

Our teaching approach combines personalized support with dynamic **live group sessions**. An instructor is available every day to assist you, and live lessons keep you actively engaged.

Regular one-on-one meetings give you the opportunity to clarify individual questions directly with your instructors and receive tailored guidance. Additionally, **live workshops** ensure you deepen your understanding and stay connected to the course content.



What **can I expect** in the course?

In this course, you'll explore the tools and techniques that data professionals use every day – from data analysis with SQL and Python to creating dashboards and working with Machine Learning and AI models. Whether you're a beginner or already have some experience, we'll cover both foundational concepts and advanced techniques, equipping you with the skills needed to excel in a data-driven career.

What makes this course special?

This program stands out due to very comprehensive content in the field of Data Science & AI, daily contact with instructors, personalized support, and a focus on hands-on teamwork.



Our students especially benefit from:

- **13 hands-on projects:** A focus on practical projects rather than just theoretical knowledge.
- **2 external certifications:** Microsoft Azure Data Fundamentals (Cloud) and PCEP Python (Programming) – carefully selected and relevant to the industry.
- **Focus on teamwork:** Learning in groups to simulate real-world work environments.



How do I learn in the course?

Project-based learning is at the core of what we do. You'll tackle real-world challenges and solve problems just like in a real company. This includes:

- **Group work** to strengthen teamwork skills
- **Regular lessons and 1:1 support** for individual guidance
- **Quizzes and presentations** to reinforce what's been learned
- Varied tasks to help you build an **impressive portfolio**

Learning methodology

Our goal is to prepare you for your entry into the tech industry with a modern learning approach. That's why we combine **hands-on learning with dedicated personal support**.



You can look forward to high-quality video lessons, self-guided projects, and our **AI assistant NOVA**, who's available to support you 24/7. Then, we'll use our time together with instructors for what matters most: putting your skills into practice.



Instead of long lectures, you'll join **short, interactive live sessions** where you can get your questions answered and collaborate on projects in a team setting. Our instructors act as personal mentors, offering you tailored feedback and guidance. This dynamic approach ensures you'll be well-prepared for the many challenges of the job market.

Guided practice: Every topic pairs your instructor's live session with hands-on, instructor-guided exercises and regular check-ins, so you apply what you learn straight away.

Learning and collaboration: our digital tools

Learning Management System (LMS)



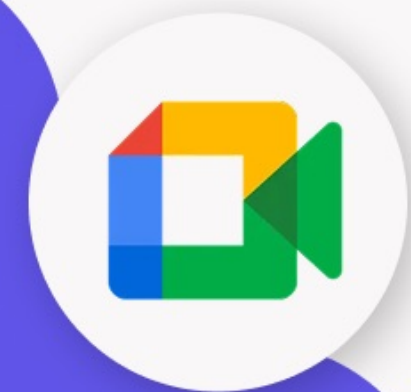
Our intuitive LMS is your go-to platform for all learning materials, assignments, and projects. It keeps you on track and makes managing your studies a breeze. Whether you're working independently or collaborating with your team, our LMS supports your every step.

Slack – your team messenger



Slack is where all the magic happens! It's our central tool for communication and collaboration. Connect with your instructors, ask questions, and get the support you need. Plus, Slack lets you network with fellow participants, share ideas, and work together on exciting projects.

Google Meet – for your video calls



Google Meet is our go-to tool for virtual meetings and video calls. With high-quality video, clear audio, and screen-sharing capabilities, Google Meet makes collaboration easy and keeps you connected with us.

Syllabus

Data science foundation (8 Weeks)

 2 Weeks

Mastering the essentials of SQL

In this module, you'll learn the essential SQL fundamentals. Through hands-on exercises, you'll build a solid foundation that we'll expand on later. Reviewing and discussing solutions will ensure you're confident with the basics and well-prepared for the upcoming modules.

 2 Weeks

Data driven business with SQL & Tableau

In this module, you'll apply your SQL knowledge to a business project. Using SQL and Tableau, you'll analyze data and provide recommendations for business growth. You'll present your results and make data-driven suggestions for the best actions to take.

 2 Weeks

Python and Pandas for effective analysis

This module introduces you to Python, an essential programming language in Data Science. With Pandas, you'll learn how to organize, clean, and analyze data quickly, extracting meaningful insights from unstructured information.

 2 Weeks

Data cleaning & storytelling with Pandas & Seaborn

Here, you'll learn how to clean, visualize, and effectively communicate data. You'll be taught how to prepare data for accurate analysis, visualize complex data clearly, and use storytelling to make data-driven decisions.

Data exploration and Data analytics (8 Weeks)

 2 Weeks

A/B testing

In this module, you'll learn how to design experiments and apply inferential statistical methods to make informed decisions. A/B testing will enable you to test ideas, measure results, and make data-backed changes to optimize products, strategies, and services.

 2 Weeks

Preparation for Python certification

Here, you'll prepare for the PCEP (Python Certified Entry-Level Programmer) certification, which you'll take during the course. This certification is a valuable proof of your Python skills, demonstrating your expertise to potential employers.

 2 Weeks

Advanced data analytics toolkit

In this module, you'll learn how to use data warehouses, spreadsheets, and dashboards to conduct comprehensive internal and external audits. You'll gain practical skills in effectively collecting, analyzing, and presenting data, which are crucial for generating insights and making strategic recommendations.

 2 Weeks

Advanced SQL

In this module, you'll deepen your SQL knowledge and learn how to run complex queries on databases and analyze data efficiently. This will help you gain valuable insights from company data and provide precise recommendations.

Cloud Computing (5 Weeks)

 4 Weeks

Hands-on cloud computing /cloud data skills with certification

In this module, you'll work on a practical project, setting up various databases and pipelines using Azure services. This hands-on experience will prepare you for the Azure certification exam and equip you with the skills to apply your knowledge in real-world Data Science projects. After completing the project, you'll take the DP-900 exam, further strengthening your cloud expertise and enhancing your competitiveness in the job market.

 1 Week

Data ethics

In the Data Ethics module, you'll learn how to critically evaluate data sources and understand the impact of bias and poor data quality. You'll explore ethical considerations and potential pitfalls in data collection and analysis, enabling you to become a responsible Data Scientist capable of developing fairer, more trustworthy solutions.



Machine learning and AI (15 Weeks)

 2 Weeks

Unsupervised machine learning

In this module, you'll explore clustering and dimensionality reduction techniques. These algorithms will help you group data based on hidden patterns. These skills are crucial for identifying trends, simplifying complex datasets, and tackling real-world Data Science challenges.

 4 Weeks

Supervised machine learning

In this module, you'll deepen your knowledge of classification, regression, cross-validation, model selection, and more.

 2 Weeks

Time series

In this module, you'll learn how to make predictions using historical data. Working with air quality data from London, you'll explore what can be predicted and the limits of prediction. You'll cover both statistical models and advanced techniques for time series analysis.

 2 Weeks

Image recognition

In this module, you'll learn how computers identify and classify objects in images. You'll build and train neural networks for image recognition tasks using advanced Python libraries. These skills are particularly valuable for projects in Computer Vision, a growing area in industries like healthcare, retail, and automation.

Machine learning and AI (15 Weeks)

📅 2 Weeks

Large language models

Here, you'll learn how to create specialized chatbots using advanced Natural Language Processing techniques. You'll gain hands-on experience developing conversational AI, opening up exciting career opportunities in the field of AI.

📅 1 Week

AI Coding

Coding is changing, and knowing how to work with AI is the new must-have skill. In this module, you'll learn to lead projects by using AI coding assistants effectively. You will move from just writing code to directing the process – learning to write smart prompts and review AI-generated work so you can build high-quality software faster than ever.

📅 2 Weeks

Machine learning operations

In this module, you'll focus on deploying and managing machine learning models using tools like Docker and refine your Git skills. You'll gain practical experience with version control and containerization – essential for building scalable, reliable machine learning solutions.



Final projects (4 Weeks)

 4 Weeks

Final project

Our Data Science & AI final projects are where everything you've learned comes together – and where you prepare for the next steps in your journey. These projects not only help you tackle real-world challenges across fields like e-commerce, music, shared mobility, UX design, and housing but also lay the groundwork for your internship and ongoing job search.

This is your opportunity to take charge of every step: selecting your data, crafting your approach, and presenting a standout solution that showcases your creativity and technical expertise. Whether you focus on a real-world case study or an area you're passionate about, these projects are designed to help you build a portfolio that **proves your skills and sets you apart in the job market**.

These **hands-on challenges** are more than technical exercises – they're a chance to experience how data science drives real-world impact across industries. Along the way, you'll sharpen your skills with tools like Python, SQL, Tableau, Machine Learning, and Data Visualization, while also honing the problem-solving and communication skills essential for your career.



A portfolio that stands out

By the time you complete your project, you'll have a **portfolio-ready piece** that not only demonstrates your expertise but also prepares you to excel in your internship, job search, and beyond.

Course **technologies**

Azure

Azure is Microsoft's cloud computing platform offering services like storage, virtual machines, AI, and data analytics, enabling scalable applications and solutions.

BigQuery

BigQuery is a serverless, highly scalable data warehouse offered by Google Cloud, enabling fast SQL-based queries on large datasets.

Docker

Docker is a tool for creating, deploying, and managing containers that encapsulate an application and its dependencies, ensuring consistent performance across environments.

Git

Git is a distributed version control system that tracks changes in code, enabling collaboration, versioning, and management of code bases.

GitHub

GitHub is a cloud-based platform for hosting and managing Git repositories, allowing for collaboration, code review, and project management for software development projects.

Looker Studio

Looker Studio (formerly Google Data Studio) is a business intelligence tool that transforms data into customizable reports and dashboards for data visualization and analysis.

MySQL

MySQL is an open-source relational database management system used to store, organize, and query structured data using SQL (Structured Query Language).

MySQL Workbench

MySQL Workbench is a visual tool for database design, development, administration, and querying, providing an intuitive interface to interact with MySQL databases.

NoSQL

NoSQL is a category of database systems designed to store and manage unstructured or semi-structured data, offering flexibility, scalability, and performance for various applications.

Pandas

Pandas is a Python library that offers powerful data manipulation and analysis capabilities, especially for working with structured data like DataFrames.

Python

Python is a versatile programming language widely used for data analysis, machine learning, web development, and automation due to its readability and robust libraries.

SciPy

SciPy is a Python library used for scientific computing and technical computing, offering modules for optimization, integration, interpolation, and more.

Seaborn

Seaborn is a Python data visualization library built on top of Matplotlib, known for its ability to create attractive and informative statistical plots easily.

Sheets

Google Sheets is a cloud-based spreadsheet tool for creating, editing, and collaborating on data, making it easy to perform basic data analysis and calculations.

SKLearn (Scikit-learn)

Scikit-learn is a Python library that provides simple and efficient tools for data mining, machine learning, and data analysis, covering tasks like classification and regression.

StatsModels

StatsModels is a Python library that provides classes and functions for statistical modelling, hypothesis testing, and data exploration.

Tableau

Tableau is a data visualization platform that transforms raw data into interactive and shareable dashboards, providing insights through visual analytics.

TensorFlow

TensorFlow is an open-source platform for machine learning developed by Google, used to build and train neural networks and deep learning models.

LlamaIndex

LlamaIndex is a toolkit that helps you connect large language models to your own data sources. It simplifies indexing, querying, and retrieving data, making it easier to build AI applications that provide accurate, relevant responses based on your documents.

Certifications that open doors

Throughout our course, you'll have the opportunity to earn several recognized certifications online, which officially validate your skills.

These external certificates are valuable proof of your technical skills and make you especially attractive to employers. Additionally, you'll receive a completion **certificate from WBS CODING SCHOOL**, confirming your successful participation in the course. Your **personal portfolio** – filled with impressive projects you create during the course – not only shows what you've learned but also demonstrates how you can apply your knowledge in practice.

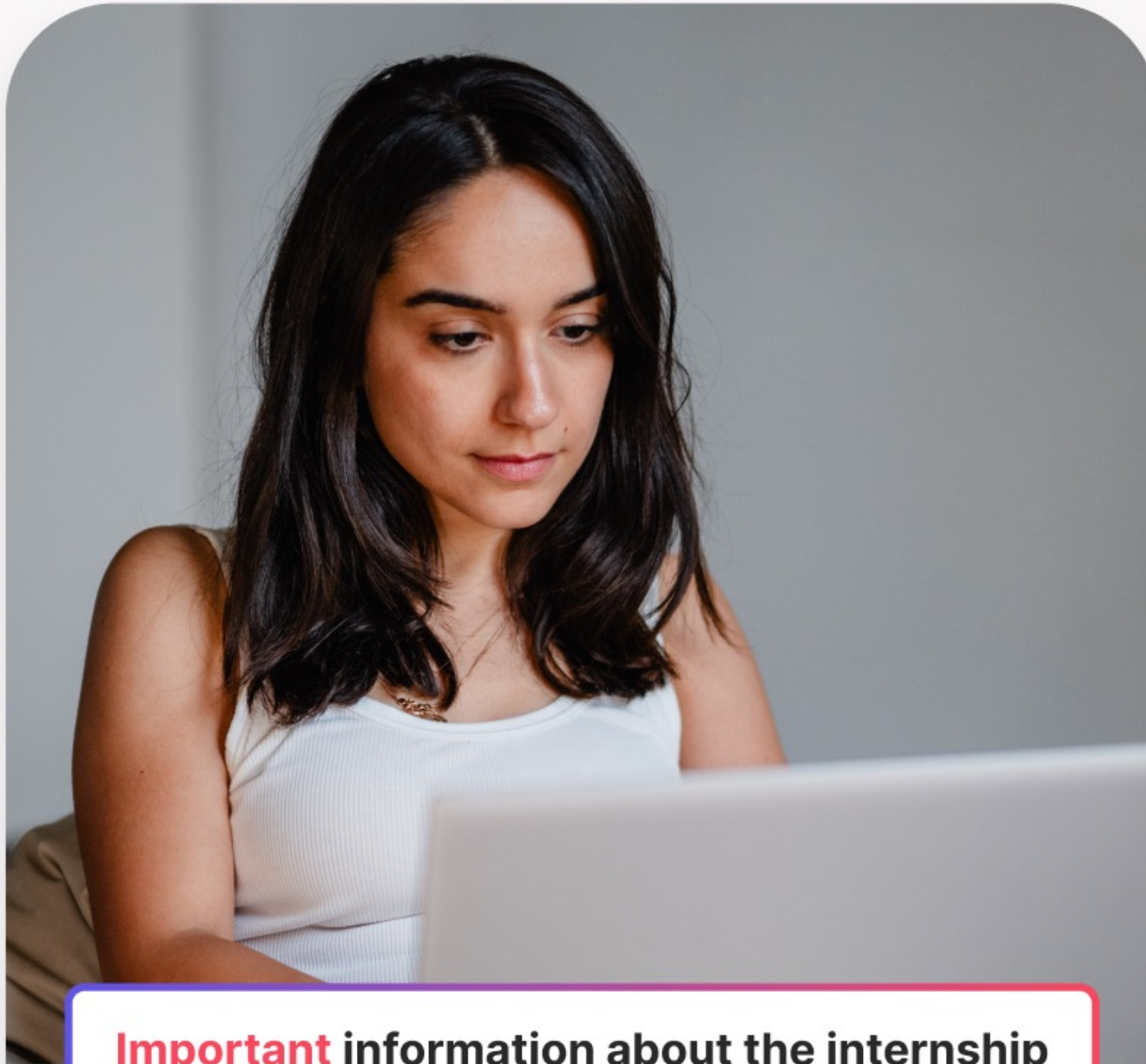
With these certifications and your portfolio, you'll be perfectly positioned to kick-start your career in the tech industry!



DP-900 Microsoft Azure Data Fundamentals
Your foundation for cloud competence



PCEP Python Entry-Level Programmer
Your entry into the world of programming



Important information about the internship

- The internship is an official part of our AZAV-certified program.
- Participants receiving unemployment or social benefits (e.g. Bürgergeld) will continue to receive support during their internship.
- Any income you earn from the internship must be reported, as it could affect or reduce your government benefits.

Guaranteed internship: your bridge to the real world

An internship is the perfect way to connect theory with practice and gain valuable hands-on experience in the tech world. At WBS CODING SCHOOL, we actively support you in finding the right opportunity—whether through our extensive partner network or personalized guidance. Not only will you develop your practical skills, but you might even lay the foundation for a future full-time position.

- **Comprehensive support in finding an internship:** Our Career Services team provides tailored advice and valuable tips, and you can also leverage our partner network.
- **Guaranteed internship placement:** If you don't secure a position through your own efforts, we guarantee you an unpaid spot at one of our nonprofit partner organizations.
- **Real-world experience:** Apply your knowledge in a real work environment and start building your professional portfolio.

Your tool for success:

Free MacBook Air

At WBS CODING SCHOOL, we want to set you up for success – and that starts with the right equipment. As a student in our 12-month Data Science & AI program, you'll receive a powerful MacBook Air.

What makes this offer so special?

- **It's yours to keep:** The MacBook Air is yours after successfully completing the course.
- **Top-tier technology:** A sleek 13-inch MacBook Air with Retina display and the lightning-fast M4 chip – perfect for tackling challenging projects.
- **Completely free:** No hidden fees or deposits required.
- **Delivered on time:** Your device arrives before the course begins, so you're ready to hit the ground running. However this may vary for students living in rural areas.



Equipped with this high-performance device, you're ready to excel. Leverage one of the industry's finest tools and begin your journey to success!



Team support: we're here **for you**

At WBS CODING SCHOOL, you're never on your own. Our dedicated team supports you every step of the way.

Admissions team

First, you'll meet our Admissions Team. They'll guide you through the entire application process, answer your questions about course content, financing, and entry options, and help you to achieve your goals.

Operations team

The Operations Team ensures that your course runs smoothly. Whether it's organizational questions, technical challenges, or anything else – our team handles all the details.

Career services

Our Career Services team is here to kickstart your journey into the working world. We'll help you level up your application materials, get you interview-ready, and share valuable tips to ace your job search.

Community team

The Community Team makes sure you feel part of our vibrant community, even online. With regular events, networking opportunities, and an active Slack community, we encourage interaction and connection – both during the course and beyond.

Instructors

Our instructors are not only experts in their fields but also passionate educators. They'll be there for you throughout the course, helping you unlock your full potential.

Career support for your **dream job**

We support you on your journey into the tech world: from personalized career advice and our exclusive talent pool to exciting events. Your success is our goal – during the course and beyond!



Career service

Our career service helps you present yourself in the best possible way – not only during your studies but also up to 12 months after graduation! From optimizing your resume to targeted interview preparation, we're here to support you.



Events

Use our events to make valuable connections in the industry. For example, at our Alumni Talk, former students share how their careers have progressed after the course – a perfect opportunity to gain insights and learn from real experiences.



Partners

With strong roots in the Berlin tech scene and close ties to companies and industry experts, we offer you a network that makes it easier to enter the job market. Our partners are always on the lookout for talent and exciting projects – and you can benefit from that!

Job market and prospects

The future prospects in the fields of Data Science and Artificial Intelligence (AI) are very promising. Companies across all industries are recognizing the importance of analyzing and strategically utilizing complex data to remain competitive. With the increasing digitization and the growing importance of data-driven decisions, the demand for professionals such as Data Scientists and Data Analysts is rising rapidly.

Given the continually growing amounts of data and technological advancements, the industry offers excellent long-term career opportunities and diverse development paths. Additionally, according to the World Economic Forum's Future of Jobs Report 2025, AI and Machine Learning Specialists are among the fastest-growing roles globally. By 2030, technological advancements in AI are projected to create 11 million new jobs, offering you a direct path into a booming market.

Sources:

[Future of Jobs Report 2025 | World Economic Forum](#)
[Data Scientist Berufsbild – Aufgaben, Gehalt & Studium](#)

86 %

of global employers expect AI and information processing technologies to transform their business by 2030.

World Economic Forum



Possible career paths

Data Scientist

 Average of €66,000 per year in Germany

What do you do on the job? Developing models, analyzing data, staying on top of trends in the data science world, improving data-driven processes, and evaluating models.

Data Analyst

 Average of €56,600 per year in Germany

What do you do on the job? Collecting and cleaning data, analyzing datasets, creating reports and dashboards, providing decision-making support, and collaborating with other departments.

Data Engineer

 Average of €65,700 per year in Germany

What do you do on the job? Building data pipelines, managing databases, integrating data, improving systems, and working closely with data scientists and analysts to align on data requirements and find solutions.

Salary range for Data Scientists in Germany

€45,000 - €55,000 per year



€60,000 - €75,000 per year



€80.000 - €95.000 per year



Source: Glassdoor, Kununu

WBS CODING SCHOOL

Your entry into the **tech world**

Since 2019, we've been dedicated to transforming ambitious learners into tech industry professionals. Our online courses in AI, Data, UX/UI, and Web Development are designed to meet the fast-paced demands of today's job market. Guided by expert instructors, students learn by doing – building the confidence to tackle the challenges of a dynamic tech industry.

But we're more than just tech training. We're a community built on inclusivity, empowering the innovators of tomorrow through personalized support, hands-on projects, and a focus on skills that make a real impact. Together, we're shaping a tech industry that's diverse, accessible, and ready for the future.

WBS GRUPPE – our strong roots

As part of the renowned WBS GRUPPE, one of Europe's leading providers of professional development, we benefit from over four decades of experience and an extensive network.



WBS CODING SCHOOL in numbers

40+ years of experience from the WBS GRUPPE

2019 - founded as part of the WBS GRUPPE

2000+ graduates

280+ WBS locations

What our alumni say



"I undertook the Data Science Bootcamp and it was **a wonderful experience**. I learned a lot but what is even better for me - I feel now I will be able to learn what I need in the future. Thank you instructors and team!"

★★★★★ Almuth Hattwich, Data Science Graduate

"I learned **lots of new things** and met a bunch of amazing people. I not only participated in a course but was also part of a community! Thank you, WBS!"

★★★★★ Andreea Belu, Data Science Graduate



Course Report
4.8/5 Stars



Switchup
4.9/5 Stars



Google
4.9/5 Stars



Trustpilot
4.8/5 Stars

Where our alumni work:

accenture

aws

BASF

facebook



Lufthansa



Mercedes-Benz

SHARENOW

TESLA



DB

SAP

zalando

Klarna

Meta

Lieferando

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