PROFESSIONAL CERTIFICATE

Google Advanced Data Analytics

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About this Professional Certificate

Get professional training designed by Google and take the next step in your career with advanced data analytics skills. **There are over 144,000 open jobs in advanced data analytics and the median salary for entry-level roles is $118,000.[1]**
Advanced data professionals are responsible for collecting, analyzing, and interpreting extremely large amounts of data. These jobs require manipulating large data sets and using advanced analytics including machine learning, predictive modeling, and experimental design.
This certificate builds on your data analytics skills and experience to take your career to the next level. It's designed for graduates of the Google Data Analytics Certificate or people with equivalent data analytics experience. Expand your knowledge with practical, hands-on projects, featuring Jupyter Notebook, Python, and Tableau.
After seven courses, you'll be prepared for jobs like senior data analyst, junior data scientist, data science analyst, and more. At under 10 hours a week, the certificate program can be completed in less than six months. Upon completion, you can apply for jobs with Google and over 150 U.S. employers, including Deloitte, Target, and Verizon.
75% of certificate graduates report a positive career outcome (e.g., new job, promo or raise) within six months of completion[2]

[1]Lightcast™ US Job Postings (Last 12 Months: 1/1/2022 – 12/31/2022)

[2]Based on program graduate survey, United States 2022

Shareable Certificate
Earn a Certificate upon completion

100% online courses
Start instantly and learn at your own schedule.

Flexible Schedule
Set and maintain flexible deadlines.

Advanced Level
Designed for those already in the industry.

English
Subtitles: English

Courses in this Professional Certificate

COURSE

1

Foundations of Data Science

4.7 447 ratings

This is the first of seven courses in the Google Advanced Data Analytics Certificate, which will help develop the skills needed to apply for more advanced data professional roles, such as an entry-level data scientist or advanced-level data analyst. Data professionals analyze data to help businesses make better decisions. To do this, they use powerful techniques like data storytelling, statistics, and machine learning. In this course, you'll begin your learning journey by exploring the role of data professionals in the workplace. You'll also learn about the project workflow PACE (Plan, Analyze, Construct, Execute) and how it can help you organize data projects. Google employees who currently work in the field will guide you through this course by providing hands-on activities that simulate relevant tasks, sharing examples from their day-to-day work, and helping you enhance your data analytics skills to prepare for your career. Learners who complete the seven courses in this program will have the skills needed to apply for data science and advanced data analytics jobs. This certificate assumes prior knowledge of foundational analytical principles, skills, and tools covered in the Google Data Analytics Certificate. By the end of this course, you will: -Describe the functions of data analytics and data science within an organization -Identify tools used by data professionals -Explore the value of data-based roles in organizations -Investigate career opportunities for a data professional -Explain a data project workflow -Develop effective communication skills

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COURSE

2

Get Started with Python

4.8 165 ratings

This is the second of seven courses in the Google Advanced Data Analytics Certificate. The Python programming language is a powerful tool for data analysis. In this course, you'll learn the basic concepts of Python programming and how data professionals use Python on the job. You'll explore concepts such as object-oriented programming, variables, data types, functions, conditional statements, loops, and data structures. Google employees who currently work in the field will guide you through this course by providing hands-on activities that simulate relevant tasks, sharing examples from their day-to-day work, and helping you enhance your data analytics skills to prepare for your career. Learners who complete the seven courses in this program will have the skills needed to apply for data science and advanced data analytics jobs. This certificate assumes prior knowledge of foundational analytical principles, skills, and tools covered in the Google Data Analytics Certificate. By the end of this course, you will: -Define what a programming language is and why Python is used by data scientists -Create Python scripts to display data and perform operations -Control the flow of programs using conditions and functions -Utilize different types of loops when performing repeated operations -Identify data types such as integers, floats, strings, and booleans -Manipulate data structures such as , lists, tuples, dictionaries, and sets -Import and use Python libraries such as NumPy and pandas

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COURSE

3

Go Beyond the Numbers: Translate Data into Insights

4.7 79 ratings

This is the third of seven courses in the Google Advanced Data Analytics Certificate. In this course, you'll learn how to find the story within data and tell that story in a compelling way. You'll discover how data professionals use storytelling to better understand their data and communicate key insights to teammates and stakeholders. You'll also practice exploratory data analysis and learn how to create effective data visualizations. Google employees who currently work in the field will guide you through this course by providing hands-on activities that simulate relevant tasks, sharing examples from their day-to-day work, and helping you build your data analytics skills to prepare for your career. Learners who complete the seven courses in this program will have the skills needed to apply for data science and advanced data analytics jobs. This

certificate assumes prior knowledge of foundational analytical principles, skills, and tools covered in the Google Data Analytics Certificate. By the end of this course, you will: -Use Python tools to examine raw data structure and format -Select relevant Python libraries to clean raw data -Demonstrate how to transform categorical data into numerical data with Python -Utilize input validation skills to validate a dataset with Python -Identify techniques for creating accessible data visualizations with Tableau -Determine decisions about missing data and outliers -Structure and organize data by manipulating date strings **SHOW LESS**

COURSE

4

The Power of Statistics

4.8 63 ratings

This is the fourth of seven courses in the Google Advanced Data Analytics Certificate. In this course, you'll discover how data professionals use statistics to analyze data and gain important insights. You'll explore key concepts such as descriptive and inferential statistics, probability, sampling, confidence intervals, and hypothesis testing. You'll also learn how to use Python for statistical analysis and practice communicating your findings like a data professional. Google employees who currently work in the field will guide you through this course by providing hands-on activities that simulate relevant tasks, sharing examples from their day-to-day work, and helping you enhance your data analytics skills to prepare for your career. Learners who complete the seven courses in this program will have the skills needed to apply for data science and advanced data analytics jobs. This certificate assumes prior knowledge of foundational analytical principles, skills, and tools covered in the Google Data Analytics Certificate. By the end of this course, you will: -Describe the use of statistics in data science -Use descriptive statistics to summarize and explore data -Calculate probability using basic rules -Model data with probability distributions -Describe the applications of different sampling methods -Calculate sampling distributions -Construct and interpret confidence intervals -Conduct hypothesis tests

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COURSE

5

Regression Analysis: Simplify Complex Data Relationships

4.8 46 ratings

This is the fifth of seven courses in the Google Advanced Data Analytics Certificate. Data professionals use regression analysis to discover the relationships between different variables in a dataset and identify key factors that affect business performance. In this course, you'll practice modeling variable relationships. You'll learn about different methods of data modeling and how to use them to approach business problems. You'll also explore methods such as linear regression, analysis of variance (ANOVA), and logistic regression. Google employees who currently work in the field will guide you through this course by providing hands-on activities that simulate relevant tasks, sharing examples from their day-to-day work, and helping you enhance your data analytics skills to prepare for your career. Learners who complete the seven courses in this program will have the skills needed to apply for data science and advanced data analytics jobs. This certificate assumes prior knowledge of foundational analytical principles, skills, and tools covered in the Google Data Analytics Certificate. By the end of this course, you will: -Explore the use of predictive models to describe variable relationships, with an emphasis on correlation -Determine how multiple regression builds upon simple linear regression at every step of the modeling process -Run and interpret one-way and two-way ANOVA tests -Construct different types of logistic regressions including binomial, multinomial, ordinal, and Poisson log-linear regression models

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COURSE

6

The Nuts and Bolts of Machine Learning

4.8 29 ratings

This is the sixth of seven courses in the Google Advanced Data Analytics Certificate. In this course, you'll learn about machine learning, which uses algorithms and statistics to teach computer systems to discover patterns in data. Data professionals use machine learning to help analyze

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